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# FEELINGS AND LOSSES EXPERIENCED
# FOLLOWING
# CESAREAN AND VAGINAL DELIVERIES

by

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A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF NURSING

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October 1, 1985

# DEDICATION

To Jon for his encouragement and
sympathetic ear.
To Alona and Benji who flourished
in spite of my research.

# ABSTRACT

The objective of this study was to describe the postpartum reactions related to loss and grieving of cesarean primigravidas to their childbirth experiences. Data relating to the emotional reactions experienced during childbirth were collected by means of a mailed questionnaire at 14 days after delivery from cesarean subjects, and compared with data collected from vaginal subjects by means of a similar questionnaire. The reported feelings experienced in relation to childbirth and the reasons given for feelings reflecting loss were explored during seven time intervals: labor, on learning of the necessity for cesarean section, the half-hour prior to delivery, delivery, the first 24 hours after delivery, the remainder of the hospital stay, and after arriving home.

Three feelings dominated the childbirth experiences of the 37 cesarean and 36 vaginal subjects: anxiety, support and happiness. Feelings of anxiety were highest during labor, decreased to a low point 24 hours after delivery, and rose again after arriving home. Feelings of being supported predominated during labor and the postpartum period in hospital. Feelings of happiness rose from low levels prior to delivery to the highest peak after arriving home.

In both subject groups the majority of respondents

indicated losses related to optimal labor experience and fear for infant safety. However, the largest difference in emotional reactions to childbirth between the groups was that cesarean delivered subjects cited loss related to optimal delivery experience more frequently than vaginally delivered subjects. Approximately one-third of all subjects indicated losses related to self-esteem and power over their home environments. One-third of cesarean subjects also experienced fears related to surgery.

A number of factors thought to influence the emotional reactions of women to childbirth are suggested in the literature and some of these were explored in this study. Recategorization of the subjects according to these demographic and obstetric factors yielded groups of widely varying size, thus limiting the conclusions that could be drawn about the impact of the selected factors on subjects' emotional reactions.

Responses related to nursing care showed that the relationships subjects had with nurses were critical and that positive relations were highly valued. In addition, nurses who were viewed as providing individualized patient care and information concerning mothering were regarded with esteem.

# ACKNOWLEDGEMENTS

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# CHAPTER ONE

## INTRODUCTION

Cesarean delivery became a safe alternative to vaginal delivery at the end of the nineteenth century with the introduction of asepsis, anesthesia, and improved surgical methods (Brian, 1967). Until the sixties the American cesarean birth rate remained relatively constant at approximately 3% of deliveries (Jones, 1976); however, during the seventies the cesarean birth rate tripled. In the United States, the proportion of cesarean births increased from 5.5% in 1970 to 18% in 1978, with some large teaching hospitals reporting a rate of 25% (Placek & Taffel, 1980). In Canada the proportion of cesarean births increased from 4.8%, of the 364,310 births, in 1968 to 13.6% in 1978, when there was a 1% decline in the total number of births (Surgical Procedures, 1973, 1982; Vital Statistics, 1971,1980). It is reasonable to conclude that one in every seven deliveries in North America is likely to be cesarean, thus the challenge faced by health care professionals, to provide a satisfying cesarean birth experience, is of significant importance.

The emotional responses accompanying any satisfying experience include feelings of joy, elation, and happiness. These feelings are commonly associated with childbirth though they are not the only responses women have after delivery. Childbearing women are thought to experience feelings reflecting both losses and gains in relation to birth.

Health care consumers are demanding a more humanistic approach to obstetric care and more control over decisions made in labor and delivery. Increasingly, prospective parents prepare to be active participants in the vaginal birth of their infants and the prospective father is encouraged to participate in all aspects of childbirth. Natural childbirth, devoid of medication which may harm the fetus, is a goal for many of these parents. In addition, immediate postpartum exploration of the infant and physical contact with the newborn is thought to be critical for later social and intellectual development. Further, early discharge from hospital after uncomplicated birth is considered important in assisting new parents to establish their family. Alternative birth centers and birthing rooms have been constructed to facilitate shared, informed, and family centered childbirth. Concomitant with these trends has been an increase in the cesarean birth rate.

Since the majority of new mothers expect and prepare to deliver vaginally, a cesarean delivery may come as a shock to these women. Birdsong (1981) suggested that in the postpartum period following a cesarean delivery some mothers experience feelings reflecting loss to a greater degree than vaginally delivered women. Moreover, Affonso and Stichler (1978) suggested that an emergency cesarean birth may engender even greater feelings of loss than an elective cesarean section. Thus, the need for a study to explore the cesarean mother's feelings toward childbirth appeared to be indicated. The acquisition of this information could in turn aide nurses in assisting women delivering by cesarean section to more satisfying birth experiences.

## PROBLEM IDENTIFICATION

As a result of the changing expectations of prospective mothers, the cesarean birth experience is less likely than the vaginal birth experience to meet the expectations of new mothers. Since unmet expectations can be perceived as losses, the cesarean delivered mother may be at greater risk for experiencing loss. Both the types of loss and the extent to which these losses are encountered after cesarean delivery are not presently known, nor are the feelings in response to these losses fully understood. In addition, the nursing care required after cesarean delivery has not been explored.

## RESEARCH OBJECTIVE

The objective of this study was to document the emotional reactions of cesarean delivered women to childbirth and compare these to the emotional reactions of vaginally delivered women. Feelings and the sources of feelings reflecting loss reported by the subjects 14 days after delivery were analyzed. Selected factors which may have contributed to these feelings and sources of feelings reflecting loss were considered. In addition, the opinions of both cesarean and vaginally delivered women toward their nursing care were explored.

## ASSUMPTIONS

The assumptions that were made in the process of this study follow.

1. Women are able to describe their feelings toward childbirth at 14 days after delivery, and will indicate their feelings on the Maternal Questionnaire (Appendix A).
2. A discrepancy between expectations and reality may constitute a loss.
3. Responses to the Maternal Questionnaire at 14 days after delivery are in fact reflective of feelings at the time of the birth event.
4. The reasons subjects give for reported feelings reflecting loss indicate the losses which they experience.
5. The fact that a subject refers to a loss 14 days after delivery indicates that she perceives the loss to be significant.

## SIGNIFICANCE FOR NURSING PRACTICE

The purpose of this study was to add to the existing knowledge concerning the emotional responses engendered by a cesarean delivery. It is believed that if nurses are aware of these emotional responses, that is loss and its variety of meanings and manifestations, they can promote healthy coping behaviors and assist new mothers toward satisfying birth experiences. Information concerning potential losses could be incorporated in prenatal class instruction. In addition, nurses could anticipate the losses which may be experienced during childbirth and help women to work through these losses in the postpartum period, both in hospital and through postnatal educational programs.

# CHAPTER TWO

## CONCEPTUAL FRAMEWORK

Childbirth in general, that is the periods of labor, delivery and postpartum, and cesarean birth in particular are thought to be situations engendering loss; thus this study is based on the conceptual framework of loss and grief. The concept of loss is considered to be an important component of the psychological sequelae of the cesarean birth experience. Further,several authors have suggested that the feelings cesarean mothers reported in the postpartum period were similar to the feelings of grieving individuals (Affonso, 1976; Birdsong, 1981; Lipson & Tilden, 1980).

The concepts of loss and grief are closely interconnected in the literature. Authors of the vast majority of both the descriptive and research literature in this area present these concepts within the context of adaptation to the death of a loved one. Relatively few investigators have focussed solely on the concept of loss. Schmidt and Hatton (1972) define loss as any situation, either actual or potential, in which a valued object is rendered inaccessible to an individual or is altered in such a way that it no longer has the qualities for which it was valued. Further, Peretz (1970a) and Carlson (1978b) suggested that loss is simultaneously a real event and a perception by which the individual endows the event with personal or symbolic meaning.

The concept of grief refers to the normal and expected combination of emotions felt following the actual or anticipated loss of something (Benoleil, 1979; Carlson, 1978a; Engel, 1964; Watson, 1980). On the other hand grieving is considered to be the psychological process required to adjust to an actual or potential loss perceived by an individual to be significant. Moreover, Carlson (1978a) suggested that the concept of grieving includes the inner process of working through, managing, growing through, acknowledging, and making peace with a loss.

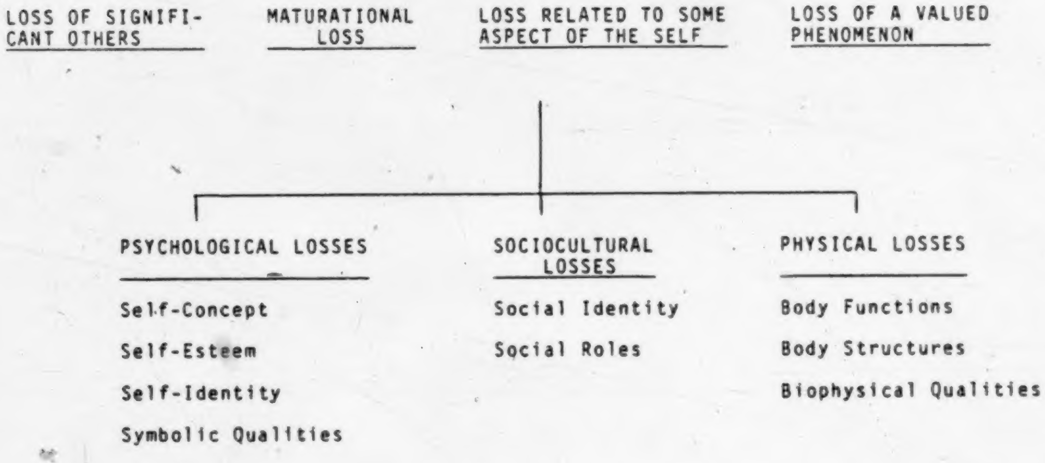
The conceptual framework of loss and grief predicts that when an individual encounters a situation which is perceived as a loss, the emotional reaction to that loss is grief. In addition, the perception of loss is thought to be influenced by certain factors. The literature concerning loss and grief are presented followed by the factors which influence the perception of loss.

## Loss

Hess (1980) categorized the types of loss an individual may encounter as: the loss of a significant other, loss related to one's body or some aspect of the self, maturational loss, and loss of a valued phenomenon or material possession. Among these, loss related to one's body or some aspect of the self is particularly relevant to this study. Peretz (1970a) referred to this loss as a self-loss, and defined it as a loss in the over-all mental representation each of us has of our body and our person. Watson (1980) further delineated self-losses to include: psychological losses (i.e. loss of self-concept, self-esteem, self-identity, or symbolic qualities and characteristics of the self); sociocultural losses (i.e. loss of social identity or social roles); and physical losses (i.e. tangible losses due to loss of body functions, structures or qualities of the biophysical self). These loss categories are illustrated in Figure 1.

FIGURE 1

TYPES OF LOSS



# Grief

The first research in the field of psychological adaptation to the loss of a significant person appears to be that reported by Lindemann (1944), in which he described the acute grief process in response to the death of a loved one, based on his study of fire victims' families. The grief process was characterized in Lindemann's sample by somatic distress, preoccupation with the image of the deceased, guilt feelings, hostility and inability to carry out everyday functions. Since that time a number of researchers have attempted to broaden our understanding of the emotional response to loss and the factors which may influence an individual's perception of loss: Freud (1959); Bowlby (1961); Engel (1964); Kubler-Ross (1969); Peretz (1970b); Shontz (1975).

Freud (1959), in his work on meloncholia, suggested that an individual must separate his libido from a lost object and reinvest in another object in order to adapt to a loss. Bowlby (1961) explored the reactions of children to separation from their parents and went on to study the reactions of adults to the loss of a significant person, body part, or body function. From this research, Bowlby defined the stages of adaptation to loss as: protest, despair, detachment,and personality reorganization. Based on observations of individuals suffering the loss of a significant person, Engel (1964) developed a framework of the grieving response. He identified the stages of shock and disbelief, developing awareness, restitution,and resolution. Threatened loss of one's own life, was explored extensively by Kubler-Ross (1969). She identified the stages an individual progresses through following the diagnosis of a terminal illness as: denial, anger, bargaining, depression,and acceptance. Peretz (1970b) characterized the normal process of grieving as limited in intensity and duration, and running its course with time, environmental support, and the natural resources of the individual who experienced a loss. In exploring the emotional response to loss of a body part or function, Shontz (1975) suggested that repetitive approach-avoidance cycles occurred as an individual encountered new difficulties related to his loss.

Carlson (1978a) devised a model of the grieving process by integrating the theoretical and empirical findings regarding grief. She described six phases of grieving: precrisis, impact and shock, realization, retreat, acknowledgement, and acceptance and adaptation. A summary of this model follows.

1. Pre-crisis or anticipatory grief occurs when preliminary signs of an impending loss are perceived by an individual. The feelings and behaviors exhibited are thought to reflect the perceived seriousness of events. Thus, the emotional response varies from quiet periods of sadness and tears to the symptoms of grief over actual loss.

2. Impact and shock follow the perception of an event as a loss. The reality of the loss may have been too catastrophic for the individual to perceive it accurately or to integrate it fully. Thus perception is narrowed and feelings of indifference or euphoria may occur. Incomprehension may give way to, or alternate with, constantly returning thoughts and memories of the lost object.

3. Realization or initial awareness is marked by anxiety sometimes of panic proportions, helplessness, and devastation. Reality appears to be overwhelming resulting in an inability to reason, plan, or fully understand the situation. Somatic distress, weakness and despair may occur.

4. Retreat is identified by the individual's avoidance of discussing anything related to the loss, selective forgetting, involvement in other activities, and denial and withdrawal behaviors. Feelings of indifference or euphoria may be expressed as in the impact and shock phase. In addition, the individual may feel that his perceptions of reality are distorted. If confronted with the reality of the loss, the individual may respond with anxiety or anger as this information is still too painful to accept. Gradually more facets of the situation are realistically confronted.

5. Acknowledgement constitutes an obsessional review of the events surrounding a loss, in order to integrate

that loss emotionally and cognitively. Feelings of guilt, self-reproach, anger, blaming of others, sadness, depression,and bitterness may be experienced at this time. Feelings of guilt are thought to result from the conflict between acceptable anticipated feelings and unacceptable unexpected feelings. Blaming of others for one's loss may be one way of coping with the painful feeling state of grief.

6. Acceptance and adaptation is the phase during which anxiety is decreased and hope renewed. The individual's attention is directed to the present and future. In this phase the individual must make accomodations to both his external environment and his own subjective experiences.

Carlson's (1978a) model of the grieving process,postulated to describe the responses of an individual to the loss of a significant person, was found to be the most helpful in understanding the postpartum reactions of cesarean mothers. In this context, it may be noted that the majority of literature concerning grief deals with the loss of a significant person. There appears to be a gap in our understanding of the process an individual undergoes in adapting to other losses, especially self losses.

## Influential Factors

A variety of factors are thought to influence the perception of loss. A significant loss appears to occur when an object which has meaning and value in a person's perception and definition of self is rendered inaccessible (Peretz, 1970b). Several investigators suggest that the perception of loss by an individual and subsequent emotional response to that loss depends upon a number of factors (Benoleil, 1971; Carlson, 1978b; Gruendemann, 1976; Peretz, 1970b). These include:

1. the perceived significance of the lost object
2. the perceived threat resulting from the loss
3. the availability of environmental and/or personal resources to deal with the loss
4. past experience with loss
5. the extent of personal disruption due to the loss
6. cultural and societal norms related to grieving
7. one's ability to replace the lost object
8. the time in life when the loss is experienced
9. the reactions of others to any changed state resulting from the loss

## Summary

The conceptual framework of loss and grief predicts that a situation is experienced as loss depending upon the influence of a number of factors and that the psychological process of adaptation to loss is characterized by feelings of grief. Since childbirth is assumed to be associated with both losses and gains, the feelings experienced in relation to childbearing will likely reflect losses and gains. According to the conceptual framework of loss and grief, it is predicted that women experiencing a loss during childbirth will report grief feelings after that loss has occurred. However, feelings reflecting gain and feelings reflecting the physiological changes of childbirth are also expected to occur, and these feelings may influence both the perception of loss and feelings reflecting loss.

# CHAPTER THREE

## LITERATURE REVIEW

In the previous chapter the types of loss an individual can experience were presented, the grieving process in response to any loss was discussed, and the factors which may influence the perception of loss were outlined. The event of childbirth appears to be accompanied by specific instances of self-loss, that is losses related to ones's body or some aspect of the self. The three categories of self-loss identified by Hess (1980) were psychological loss, sociocultural loss,and physical loss. Both the type of loss and the feelings reflecting loss appeared to be related to the mode of delivery, cesarean or vaginal, in the childbirth literature. In addition, a number of factors were suggested to influence women's perception of loss during childbirth.

The literature concerning childbirth and the cesarean birth experience is presented in three sections: losses, feelings, and influential factors. In each of these sections both the descriptive and research literature are reviewed and summarized. The research questions for this study were formulated based on the literature review and they are presented at the end of this chapter, accompanied by the operational definitions.

## Losses

Grace (1978) and Clark (1976) suggested that loss is experienced to some degree by all childbearing women at some point during their childbirth experience, that is pregnancy, labor, delivery, and/or the postpartum period. The losses which may be experienced are categorized here as psychological, sociocultural, and physical. Psychological self-losses are those related to status of pregnancy, interpersonal environment, expected birth experience, expected support from husband and children, self-esteem, ideal mothering capabilities. Sociocultural self-losses are related to former roles. Physical self-losses are those related to control of body functions and body image in the postpartum period (Clark, 1976; Doering & Entwisle, 1975; Grace, 1978; Highley & Mercer, 1978; Lesh, 1978; Rubin, 1967, 1968).

The evidence from the literature concerning cesarean childbirth indicates that cesarean delivered women are more likely to suffer the losses just mentioned compared with vaginally delivered women. There are also losses which are specific to cesarean delivery such as anticipated loss of one's health and/or life. Two categories of self-losses were addressed in the literature concerning cesarean childbirth, physical and psychological. Sociocultural self-losses received very little attention. The physical losses include threats to personal or infant safety, the ability to control body functions, and body image. Psychological losses are related to the ability to control self and the events of childbirth, self-concept, anticipated birth experience, self-esteem, support person's presence during labor and delivery, and expected bonding experience.

## Descriptive Literature

Beginning with the writings of Rubin in 1967, a number of losses were hypothesized to result specifically from cesarean childbirth. Of these losses the physical self-losses appeared to result from threats to or changes in the anatomy and/or physiology of the individual. On the other hand, the psychological self-losses appreared to result from women's perceptions of their performance during childbirth and their unfulfilled hopes and dreams.

### Physical Self-Losses.

Bampton and Mancini (1973) suggested that many women express anxiety over their own and their infants health and/or life prior to cesarean childbirth.. Affonso (1976), Cohen (1977), Mevs (1977), Marut (1978), Schlosser (1978), and Wilson and Hovey (1980) supported this notion of an increased threat to personal and/or infant safety prior to cesarean delivery.

The ability to control body functions may be impaired as a consequence of catheterization, bladder trauma, postpartum ileus, and difficulties of movement due to pain. Rubin (1967) highlighted the loss of functional control which was experienced by some women after delivery.

Women were noted to have revised and modified their body images in accordance with the physical changes occurring in the postpartum period, the scars from an episiotomy or cesarean section, and stretch marks (Cohen & Estner, 1983; Conklin, 1977; Conner, 1977; Enkin, 1977; Gruendemann, 1975; Marut, 1978). This revision and modification is defined as loss related to body image.

It is evident that there is much support for the occurrence of physical self-losses following cesarean delivery. Moreover, authors in their descriptive writings identified and corroborated the existence of the psychological self-losses specific to the cearean birth experience.

Psychological Self-Losses. Affonso (1976) noted that cesarean delivered mothers experienced loss of the ability to control events directly affecting themselves and the birth experience. Wilson and Hovey (1980), Fawcett (1981), and Cohen and Estner (1983) also indicated this potential for loss of control. Further, Cohen (1977) and Humenick (1981) noted that this loss of control was evidenced by diminished participation during the birth and an inability to communicate their wishes to staff if they were under general anesthesia. Conversely, active participation increases women's feelings of control over childbirth (Reynolds, 1977). In addition, Humenick (1981) observed that an individual's locus of control may become externalc if she loses control during labor with accompanying feelings reflecting loss such as depression, powerlessness, inadequacy, and failure. In this context it may be noted that a sense of control was thought to be helpful in counteracting the feelings of shame, confusion, and inadequacy in response to a loss (Donovan & Allen, 1977; Lipson & Tilden, 1980).

Rubin (1967) suggested that the ability to have a vaginal delivery was viewed, by some women, as a component of their self-concept and an expression of womanliness. Thus a woman who does not deliver vaginally may suffer loss related to her self-concept. In addition, feelings of attractiveness, worth, health, and self-definition of one's social role may suffer as a result of loss related to self-concept (Cohen, 1977; Conner, 1977; Grace, 1978; Gunn, 1967; Marut, 1978; Stokamer, 1980). Further, some cesarean mothers expressed feelings of abnormality, as a result of their inability to deliver a baby the "natural" way (Cohen & Estner, 1983; Wilson & Hovey, 1980).

Rubin hypothesized that women delivering by unplanned cesarean section were more likely to report a discrepancy between their expectations and the reality of their birth experiences in comparison to women delivering vaginally. Affonso (1976),Conner (1977),Enkin (1977), Reynolds (1977),Grace (1978),Lipson & Tilden (1980),and Stokamer (1980) also indicated the likelihood of this discrepancy. Some women apparently felt that parts of the birth process, such as labor contractions and pushing the baby out, were taken away from them.

Loss of self-esteem was related to the failure to have a vaginal delivery, pain, delayed mothering, and physical limitations associated with a cesarean section (Affonso, 1976; Cohen, 1977; Cohen & Estner, 1983; Conner, 1977; Peterson & Mehl, 1978; Wilson & Hovey, 1980). A woman's self-esteem seemed related to the perception she had of her performance during childbirth, and the trust and confidence she had in herself.

The absence of a support person during labor and delivery was noted to result in feelings of isolation, depression, and disorientation and thus might impede recovery if a woman had expected this support (Affonso, 1976; Grace, 1978; Rubin, 1967). The presence of a support person was thought to contribute to a woman's overall satisfaction with her birth experience, to increase her sense of control, to assist the mother in bonding with her child, and to increase her feelings of protection (Cohen & Estner, 1983; Enkin, 1977; Marut, 1978; Willmuth, 1975; Wilson & Hovey, 1980).

Klaus et al. (1972) hypothesized that the first few hours and/or days after birth are important for developing maternal attachment. Conner (1977), McGowan, (1977), Marut (1978), Peterson and Mehl (1978), and Leifer (1980) supported this notion. The immediate postpartum period following a cesarean delivery could be clouded because of analgesia and anesthesia, raising concern about loss related to early establishment of the maternal-infant relationship. However, Tulman (1981) observed that this critical period of attachment theory ignored the human potential for adaptation by denying the mother and infant who are separated, or the adoptive mother, the hope of establishing an adequate mother-infant relationship. Klaus et al. (1976) have agreed that the early attachment period may not be as critical as was first thought.

## Research Literature

Findings from three research studies provide information concerning losses women report following cesarean sections (Affonso & Stichler, 1978; Marut & Mercer, 1979; Birdsong, 1981). These studies were exploratory in nature and, though losses were not specifically elicited, information concerning losses was gleaned from the description given concerning emotional responses to childbirth. Design and sample size varied among the studies; however, the findings indicate that losses related to optimal birth experience and body image were common across the studies for cesarean subjects.

Affonso and Stichler (1978) conducted a study of 105 cesarean delivered mothers using structured interviews, two to four days postpartum. Their findings based on a 95% response rate showed that the majority of cesarean mothers experienced one or more losses. These included fear for personal and infant safety, the ability to control body functions, body image, the ability to control self and the events of childbirth, expected birth experience, and support person's presence during labor and delivery.

A comparative study of 30 vaginal and 20 emergency cesarean delivered primiparous subjects was conducted by Marut and Mercer (1979). The instruments used to compare these two groups were structured interviews and a 20 item Likert type questionnaire on attitudes to the childbirth experience. These were administered within 48 hours of delivery, and the researchers achieved a 92% response rate. All subjects were reported to have had normal pregnancies and began labor expecting a vaginal delivery; however, length of labor was significantly higher for the cesarean group. Though the proportions of subjects reporting losses were not indicated,the findings suggested that cesarean subjects experienced losses related to fear for personal or infant safety, the ability to control self and the events of childbirth, expected birth experience, self-esteem, support person's presence during delivery, and expected bonding experience more frequently than vaginally delivered subjects

Birdsong (1981) conducted a study of 20 cesarean and 16 vaginally delivered women who were private patients in two hospitals. The cesarean subjects were involved in local cesarean support groups and all subjects attended prenatal classes. Self-administered questionnaires, completed two weeks after delivery, were used to collect demographic data and feelings reported before, during and after delivery. Based on a 50% response rate, subjects who were delivered by cesarean section reported losses related to body image, expected birth experience and self-esteem significantly more frequently than vaginally delivered subjects.

## Summary

A variety of losses were identified in the descriptive literature that were attributed to delivery by cesarean section. Research findings supported the notion that a greater proportion of women having cesarean deliveries reported losses related to: fear for personal and infant safety, body image, the ability to control self and the events of childbirth, expected birth experience, support person's presence during labor and delivery, self-esteem, and expected bonding experience compared with vaginally delivered women. While specific losses related to cesarean delivery have been identified there is little information concerning the frequency of these losses. Thus the frequencies of losses occurring in a general population after both cesarean and vaginal birth were analyzed in this study.

### Feelings

The most common feelings in reaction to a loss are those reflecting grief. It is not surprising that in the literature, the feelings described by women who experienced loss after a cesarean delivery are similar to those of grieving individuals. Much of the literature concerning cesarean births dealt with the feelings women expressed as a consequence of their birth experiences. This literature consists of both description and research. Most of the theoretical work focused on prenatal considerations of the cesarean family, the feelings and behaviors of cesarean mothers in the intrapartum and postpartum periods, and on guidelines for the nursing care of the cesarean family. The research surveyed consists of six studies, three of which reported exclusively on the emotional response of cesarean mothers to their childbirth experiences, whereas the other three compared the emotional responses of cesarean and vaginally delivered women to childbirth.

## Descriptive Literature

Fourteen authors drew on their professional experience to describe some of the feelings cesarean mothers had expressed. The feelings of failure, fear, guilt, anger, disappointment, relief, envy, depression, helplessness, and distorted perceptions were most often mentioned. Table 1 outlines the number of studies in which authors reported those feelings commonly experienced by cesarean mothers

TABLE 1. FEELINGS CESAREAN MOTHERS MAY EXPERIENCE AS SUGGESTED IN THE DESCRIPTIVE LITERATURE

| FEELINGS | No.* | Sources** |
|---|---|---|
| Failure, Inadequacy | 8 | 1,2,4,6,7,8,10,14 |
| Fear, Anxiety | 8 | 1,3,5,7,8,9,11,14 |
| Guilt, Shame, Self-reproach | 7 | 1,2,4,5,8,12,14 |
| Anger, Being cheated, Bitterness | 6 | 4,5,7,8,13,14 |
| Disappointment, Sadness | 6 | 5,7,8,12,13,14 |
| Relief | 5 | 1,2,4,7,8 |
| Envy (of the vaginally delivered) | 5 | 1,2,4,7,14 |
| Depression | 5 | 4,5,9,10,14 |
| Helplessness | 5 | 1,3,5,8,14 |
| Distorted Perceptions | 5 | 2,5,8,11,13 |
| Frustration | 4 | 5,7,8,12 |
| Loneliness, Being left out | 3 | 7,8,14 |
| Intrusion | 3 | 6,7,11 |
| Pain | 3 | 1,3,5 |
| Fatigue, Weakness | 2 | 1,5 |
| Denial | 2 | 4,7 |
| Shock, Disbelief | 2 | 5,7 |
| Losing Control | 2 | 4,7 |

*Number of Studies

**1. Affonso, 1976
2. Affonso & Stichler, 1981
3. Bampton & Mancini, 1973
4. Cohen, 1977
5. Cohen & Estner, 1983
6. Conklin, 1977
7. Conner, 1977
8. Donovan & Allen, 1977
9. Enkin, 1977
10. Gunn, 1967
11. Marut, 1978
12. Reynolds, 1977
13. Stokamer, 1980
14. Wilson & Hovey, 1980

prior to, during, and after their deliveries. According to this literature, cesarean delivered women might have one or a combination of the feelings depicted.

## Research Literature

The findings reported in the research studies largely supported the notion suggested in the descriptive literature, that is that a host of feelings reflecting loss may occur in response to a cesarean delivery. Those findings which reveal feelings reported by cesarean mothers will be highlighted, in chronological order. Methodological descriptions of the studies by Affonso and Stichler (1978), Marut and Mercer (1979),and Birdsong (1981) are found in the Losses section of the literature review.

Feelings of 105 cesarean subjects at several time intervals during the childbirth experience were explored by Affonso and Stichler (1978). When the mothers learned that cesarean delivery was necessary, 88% of subjects reported fear for personal safety and 53% reported fear for infant safety. Prior to surgery fear was reported by 92% of subjects and less than 25% reported feeling dissatisfied, depressed, disappointed, and/or angry. In the operating room, distorted perceptions were reported by 48% of the subjects, fear by 39%, and pain by 31%. In the recovery room relief was most often cited (70%), anxiety concerning the infant was reported by 51%, and less than one quarter of subjects reported distorted perceptions, pain, disappointment, and/or anger .

In their comparative study, Marut and Mercer (1979) uncovered differences between the perceptions of cesarean and vaginally delivered primiparas. Cesarean subjects were found to have reported fear, anger, and distorted perceptions more often, though statistical tests were not reported.

Lipson and Tilden (1980) attempted to define how women adjust to cesarean childbirth. They employed both participant observation of cesarean support group meetings and indepth interviews of 21 women, who had experienced cesarean deliveries and took part in cesarean support groups. Five phases were described as commonly occurring in the psychological integration of the cesarean birth experience. Phase One, the first twenty-four hours after delivery, was marked by feelings of shocked numbness and a sense of suspended animation. In Phase Two, the remainder of the hospital stay, feelings of relief, guilt, anger, disappointment, depression, and envy towards vaginally delivered women were expressed. Emerging awareness, Phase Three, occurred from discharge to eight weeks postpartum. The women in this study reported both the strong need to be taken care of and disappointment in their mothering skills. Perceptions of stigma, feelings of failure, and self-image problems bothered many women during this phase. Phase Four, the intermediate resolution phase occurring from two months to one year postpartum, was characterized by the need and desire to accept and understand the cesarean experience. The final phase, resolution of the birth experience, occurred when women accepted the various feelings they had and placed them in some sort of perspective. Lipson and Tilden (1980) postulated that resolution of the cesarean experience was analogous to the resolution of loss.

Kehoe (1981) explored the postpartum emotional reactions of cesarean mothers while they were in hospital. Data were obtained by unstructured interviews with 11 cesarean mothers who had unexpected cesarean deliveries. These mothers demonstrated feelings of guilt, concern over their infants' well-being, anxiety, powerlessness, lowered self-esteem, concern over their partners' acceptance of their scars, and concern over subsequent sexual performance. Failure in maternal role performance was described as pervasive and devastating, with feelings of abnormality, helplessness, and concern over physiological restoration being expressed. Kehoe (1981) reported that there was an urgency for mothers to assume care of their babies in order to cope with perceived maternal role failure.

The comparative study of Birdsong (1981) revealed a number of significant differences in reported feelings between cesarean and vaginal subjects. Cesarean subjects reported fear/anxiety, distorted perceptions, disappointment, powerlessness, and shock significantly more frequently than vaginally delivered subjects.

Cranley, Hedhl, and Pegg (1983) conducted a comparative study of 40 vaginal, 39 emergency cesarean, and 43 elective cesarean delivered subjects, two to four days postpartum. They used four instruments to obtain data concerning women's reactions to childbirth: structured interviews, the Perception of Birth Scale (from Marut and Mercer's study, 1979), the Leifer Scale which was used to explore feelings about one's infant, and the Decision Participation Scale which measured the amount of control a woman felt she had over her childbirth experience. Their findings, with respect to feelings, were more general than those of the previous studies. Their results support the findings of the other studies, that is that grief feelings may occur after cesarean delivery. Emergency cesarean subjects were found to have less positive perceptions of their birth experiences than the other two groups. Thirty-five percent of emergency cesarean subjects rated their childbirth experiences as negative overall compared to 9% of those who had elective cesarean deliveries and 5% of those who delivered vaginally. In addition, emergency cesarean delivered subjects who had positive perceptions of their birth experiences expressed more positive feelings toward their infants, during the first week after birth, compared to those who had less positive perceptions of their birth experiences.

## Summary

Research findings indicated that the most common feelings cesarean mothers associated with their childbirth experiences are: fear/anxiety, distorted perceptions, pain, relief, shocked numbness, disappointment, envy towards vaginally delivered women, dependency/helplessness, failure, guilt, powerlessness, low self-esteem, depression and feelings of being abnormal. In addition, women who delivered by cesarean section were found to experience the following feelings more frequently than vaginally delivered mothers: fear/anxiety, anger, distorted perceptions, disapppointment, powerlessness, and shock. The feelings attributed to mothers following cesarean section found in the descriptive literature were supported by research findings.

Many of the feelings expressed by cesarean mothers appear to be similar to the feelings expressed during the grieving process. The feelings identified in the cesarean birth literature, which also characterize grieving individuals, are: sadness, shock, anxiety, helplessness, distorted perceptions, anger, guilt, self-reproach, depression, bitterness, and shame. The similarities between grieving and the emotional response of women to their cesarean birth experiences are striking. However, some similarities in feelings, such as distorted perceptions and pain, may result from the experience of childbirth rather than from loss. Other feelings namely relief, envy, and feelings of being abnormal differ from those experienced in the grieving process. It was the investigator's hypothesis that these differences were related to the fact that the body of knowledge concerning grief is largely based on the loss of a significant other. Thus the feelings reported after cesarean delivery, which appear to be in response to self-losses, will differ from those reflecting loss of a significant other. This current exploration of the emotional responses of women to self-losses will add to the existing body of knowledge concerning grieving.

Marut and Mercer (1979), Birdsong (1981), and Cranley, Hedahl, and Pegg (1983) found, in their comparative studies of cesarean and vaginally delivered women's emotional responses to childbirth, that cesarean delivered subjects experienced feelings reflecting loss to a greater degree than vaginally delivered subjects. A continuing need for further exploration of these differences as well as identification of the similarities between these two groups of women was evident.

### Influential Factors

Both the perception of loss and the subsequent emotional responses appear to vary among individuals. For some women the gains achieved in the postpartum period may decrease the significance of the losses they experience with cesarean delivery. Other women appear to experience losses more intensely postpartum. Perception of loss is thought to be influenced by three categories of factors: the objective characteristics of a change or loss, characteristics of the individual experiencing the loss, and the individual's external resources (Carlson, 1978b). These three categories were considered in reviewing the literature concerning factors which might influence the perception of loss during childbirth.

### Descriptive Literature

The most common objective characteristics identified in the literature were time to prepare for a cesarean delivery and physical complications of pregnancy, labor, delivery and the postpartum period (Table 2). Length of labor and type of anesthesia employed were also thought to have some impact on the losses experienced in relation to childbirth. In addition, a number of other objective characteristics were noted by only one author or group of authors: induction of labor (Macfarlane, 1977), indications for cesarean delivery (Lipson & Tilden, 1980), method of cesarean section (Mevs, 1977), infant's health

TABLE 2. FACTORS INFLUENCING WOMEN'S PERCEPTIONS OF THEIR CHILDBIRTH EXPERIENCES AS SUGGESTED IN THE DESCRIPTIVE LITERATURE

| FACTORS | No.* | SOURCES** |
|---|---|---|
| Objective Characteristics: | | |
| Time to prepare for a cesaren | 5 | 1,2,4,11,13 |
| Physical complications of birth | 4 | 3,11,14,16 |
| Length of labor | 2 | 11,13 |
| Type of anesthesia | 2 | 1,6 |
| Individual Characteristics: | | |
| Prenatal class attendance | 4 | 5,6,10,11 |
| Perceived control over birth | 3 | 5,11,17 |
| Fertility problems | 2 | 9,11 |
| External Resources: | | |
| Support person's presence during labor and delivery | 9 | 1,5,7,8,11,<br>12,13,16,17 |
| Availability of community support | 2 | 1,15 |

*Number of studies

**1. Affonso, 1981
2. Affonso & Stichler, 1978
3. Bampton & Mancini, 1973
4. Birdsong, 1981
5. Cohen, 1977
6. Donovan & Allen, 1977
7. Enkin, 1977
8. Grace, 1978
9. Gunn, 1967
10. Humenick, 1981
11. Lipson & Tilden, 1980
12. Marut, 1978
13. Marut & Mercer, 1979
14. Mercer, 1979
15. Mevs, 1977
16. Rubin, 1967
17. Willmuth, 1975

(Affonso, 1981), and delay in maternal-infant contact (Marut, 1978).

Attendance at prenatal classes was cited as the most influential individual characteristic (Table 2). Two individual characteristics, perceived control over the birth experience and fertility problems, that is difficulty conceiving, were also suggested to be influential. Further the individual characteristics which were cited by only one author or group of authors were: parity (Cohen, 1977), ability to cope and adjust to new and stressful situations (Mevs, 1977), past experience with hospitalization, surgery, and anesthesia (Mevs, 1977), major life changes during the prenatal and postnatal periods (Marut, 1978), how the pregnancy and infant were viewed (Mevs, 1977), expectations about the birth (Affonso, 1981), and amount of pain perceived (Marut & Mercer, 1979).

The most frequently suggested external resource to impact on women's perceptions of their childbirth experiences was the presence of a support person during labor and delivery. The availability of a community support system was thought to be another influential external resource. Table 2 outlines those factors which were most frequently cited in the descriptive literature as influencing women's perceptions of their childbirth experiences and the number of studies in which the factors were cited.

Research Literature

Two groups of researchers (Marut & Mercer, 1979; Cranley, Hedahl and Pegg, 1983) explored several factors which were thought to have influenced their subjects' emotional responses to childbirth. The first study is described in the Losses section of the literature review, and the second study in the Feeling section.

In Marut and Mercer's study (1979),the factors which revealed the greatest differences in emotional response to childbirth between cesarean and vaginally delivered primiparas were the control subjects felt they had over childbirth and the timing of maternal-infant contact. Subjects who felt they had more control and those who had early maternal-infant contact had more positive perceptions of birth. Also, a significant difference was found concerning type of anesthesia employed in cesarean delivery. Infants had not been named 48 hours after delivery more frequently by those subjects receiving general anesthesia than by those who had received regional anesthesia. Marut and Mercer assumed that naming one's infant was part of the bonding process, thus general anesthesia apparently interferes with the optimal bonding experience.

The research study by Cranley, Hedahl and Pegg (1983) explored the impact of the type of anesthesia employed, presence of a significant other during delivery, significant input in decision making, length of labor, and feeding mode. Women who experienced cesarean birth and who had regional anesthesia viewed their childbirth experiences more positively than those who had general anesthesia. Subjects who had a significant other present during cesarean delivery viewed their childbirth experiences more positively than those who were alone. Those subjects,who had planned cesarean deliveries and perceived themselves to have significant input in decision making,viewed their childbirth experiences more positively than those who did not. Length of labor was not found to influence the subjects' perceptions of their birth experiences. Subjects who breastfed their babies viewed their childbirth experiences more positively than those who bottlefed. However, breastfeeding subjects had a support person present during delivery more often, which may have influenced this result.

### Summary

The research studies supported the assumption that type of delivery, cesarean or vaginal, has an impact on women's reactions to their childbirth experiences. Other factors which influence these reactions include the type of anesthesia employed, delay in maternal-infant contact, the amount of control a woman perceives she has over her childbirth experience, the feeding mode, and the presence of a support person during delivery. Since multiple factors have been identified as having the potential to influence a woman's perception of her childbirth experience, her perception of loss, and her emotional responses to loss, a systematic attempt to explore the influence of some of these factors was warranted.

## Research Questions

Based on the literature concerning childbirth the overall objective of this study was to document the emotional reactions of cesarean delivered women to childbirth. A comparative approach was undertaken to accomplish the documentation, that is the emotional reactions to cesarean and vaginally delivered primigravidas to childbirth were compared. The following five research questions pertaining to this comparison were formulated.

1. What are the similarities and differences in reported feelings at 14 days after delivery?

2. What are the similarities and differences in reported reasons for experiencing feelings reflecting loss at 14 days after delivery?

3. What demographic variables, if any, are associated with reported feelings and reasons for feelings reflecting loss at 14 days after delivery?

4. What obstetric variables, if any, are associated with reported feelings and reasons for feelings reflecting loss at 14 days after delivery?

5. What aspects of nursing care received during the childbirth experience, if any, are valued at 14 days after delivery?

## Operational Definitions

Primigravida is defined as a woman who is pregnant for the first time (gravida I), delivers a live infant of at least 37 weeks gestation in the selected hospital during the study period, and who is discharged from the hospital with her infant by the twelfth day postpartum.

Childbirth experience refers to the events of labor, when the necessity for cesarean delivery was known, the half-hour prior to delivery, the first 24 hours after delivery, the remainder of the hospital stay, and after arriving home to 14 days after delivery.

Cesarean delivery refers to the delivery of a live infant by an incision through the abdominal wall and uterus.

Vaginal delivery refers to the delivery of a live infant through the vaginal canal, without employing general anesthesia.

*Feelings* refer to the words connoting emotion which subjects use to convey an affective state in response to questions designed to explore these affective states (Part II,Maternal Questionnaire, Appendix A).

*Loss* is defined as a real or anticipated situation perceived by a subject as altering the accessibility of something which is valued, and these situations are described by subjects in response to the questions designed to elicit the reasons why a subject reported a particular feeling (Part II, Maternal Questionnaire).

*Demographic variables* refer to age, marital status, race, previous surgery and major life changes in the past year, as obtained from the subject's hospital records (Appendix C) and Part I of the Maternal Questionnaire.

*Obstetric variables* refer to fertility problems, attendance at prenatal classes, preference for cesarean delivery, length of time to prepare for cesarean delivery, labor induction and augmentation, length of labor, indications for cesarean delivery, presence of a support person during labor or delivery, infant sex, infant weight, apgar scores, infant feeding mode, postpartum unit, length of postpartum stay, and physiological complications of pregnancy, delivery and the postpartum period, as collected from the subjects' hospital records and from the subjects' responses to Part I of the Maternal Questionnaire.

Aspects of Nursing Care refer to the qualities of nurses or the acts nurses perform which subjects report to be of value, in response to Part III of the Maternal Questionnaire.

# CHAPTER FOUR

## METHODS

The research methods used in this study are presented in five sections: research design, selection of the population and sample, ethical considerations, data collection procedures and instruments, and reliability and validity of the instruments.

### Research Design

The research approach taken was a descriptive-comparative survey employing two groups. The first group consisted of cesarean delivered women and the second group of vaginally delivered women. The Maternal Questionnaire (Appendix A) was used to obtain subjects' reported feelings and reasons for feelings reflecting loss in relation to their childbirth experiences. Data on selected demographic and obstetric variables were collected on the Chart Data Form (Appendix B) to ascertain the comparability between groups. They were also used to examine potential relationships between demographic and obstetric characteristics and the subjects' feelings and reasons for feelings reflecting loss.

### Selection of the Population and Sample

The study population consisted of all primigravidas (gravida I, para I), who delivered one live infant of at least thirty-seven weeks gestation at one urban tertiary care hospital during a four month period. The selected hospital was an acute-care teaching hospital, and was chosen as the setting for this study because of the large number of primigravida deliveries performed there.

The sample was one of convenience consisting of 45 cesarean and 48 vaginally delivered primigravidas. The criteria for subject selection were that 1) the subject read and wrote English, 2) the subject's infant was admitted to a general nursery at birth, and 3) the cesarean subject had general anesthesia.

A pilot study of five cesarean and eight vaginally delivered primigravidas was conducted to ensure that the Maternal Questionnaire elicited data concerning the subjects' feelings and reasons for these feelings. As the questionnaire was found to be effective these subjects were included in the study for a total of 93 subjects. Twenty subjects did not respond to the questionnaire, thus a response rate of 78.5% was achieved. Table 3 illustrates the composition of the subjects by type of delivery and shows respondents and nonrespondents for both groups.

TABLE 3
PROPORTIONS OF DELIVERY GROUPS BY
RESPONSE TO MATERNAL QUESTIONNAIRE

| GROUP | TOTAL SAMPLE N (%) | RESPONDENTS N (%) | NONRESPONDENTS N (%) |
|---|---|---|---|
| CESAREAN | 45 (100%) | 37 (82%) | 8 (18%) |
| VAGINAL | 48 (100%) | 36 (75%) | 12 (25%) |
| TOTALS | 93 (100%) | 73 (78.5%) | 20 (21.5%) |

## Ethical Considerations

Approval for the study was obtained from the Clinical Investigation Committee of the study hospital. In addition a letter describing this study (Appendix C) was submitted to the Chief of Obstetrics to obtain permission for the investigator to approach patients being cared for by the obstetricians. General practioners were approached individually to obtain permission to include their patients in this study. Permission was granted in all instances.

The subjects were approached by the investigator during their hospital stay and invited to participate in the study. No subject refused to participate at this point. Each subject was made aware of the nature and purpose of the study and that the requirement of participation was to answer a self-administered mailed questionnaire at two weeks postpartum. Subjects were informed that a follow up phone call would be made to them 14 days after delivery to ensure that the questionnaire had arrived. No attempt was made by the investigator to coerce the subjects into participating in the study during the phone call. The subjects were also assured that they could refuse to participate and/or withdraw from the study at any time without penalty or consequence. A letter indicating the measures taken to ensure anonymity and confidentiality (Appendix D) was enclosed with the mailed questionnaire.

A returned questionnaire was considered to imply consent to participate in this study. Subjects were assured of confidentiality by the assignment of a study number at the time of selection. All subject identifying data were destroyed.

## Data Collection Procedures and Instruments

Data relevant to the twenty-four demographic and obstetric variables of interest to this study were gathered from the subjects' hospital records (Appendix B). Demographic variables, items 1 through 8 and 22, were collected to delineate the study sample. The remaining items were included because previous investigators suggested their possible impact on postpartum emotional reactions. Table 4 shows both the items and the sources in which these variables were suggested.

As previously noted, additional information was obtained directly from the subjects by means of the self-administered Maternal Questionnaire (Appendix A). A follow-up phone call was made at 14 days after delivery to remind the subjects that it was time to complete the mailed questionnaire. This 14 day time period was chosen to give the subjects time to reflect on their experiences and thus formulate their perceptions.

Two pretests of the Maternal Questionnaire were conducted to assess its ability to elicit statements concerning feelings related to childbirth, the reasons for these feelings, and comments concerning the nursing care that subjects received. The first pretest was conducted with 20 women who had had children in the past two years. Changes were made to enhance the clarity of the questions and a second pretest was conducted with eight primigravidas two weeks after delivery. The second pretest demonstrated the effectiveness of the questionnaire in eliciting the data required for this study.

The Maternal Questionnaire consisted of three parts. Part I was constructed by the investigator and contained three questions which explored the subject's preference for cesarean delivery, the point in time when the possibility of cesarean delivery was known, and the presence or absence of major life changes during the past year. Preference for cesarean delivery was selected because an experienced maternal child nurse had suggested its importance to this study. The other two factors were selected because the findings of previous investigations had indicated their possible impact on postpartum emotional reactions. The sources from which these factors were identified are indicated in Table 4.

Part II of the questionnaire consisted of nine open-ended questions on feelings experienced before, during, and/or after delivery. This portion of the questionnaire was adapted and expanded from a similar

TABLE 4
SOURCES OF SELECTED DEMOGRAPHIC AND OBSTETRIC FACTORS

| FACTOR (ITEM NUMBER) | JUSTIFICATION (SOURCES) |
|---|---|
| CHART DATA FORM: | |
| Past Experience with Surgery (3) | Mevs (1977) |
| Fertility Problems (10) | Gunn (1967)<br>Lipson & Tilden (1980) |
| Attendance at Prenatal Classes (11) | Cohen (1977)<br>Donovan & Allen (1977)<br>Humeniuk (1981)<br>Lipson & Tilden (1980) |
| Complications of Pregnancy, Labor, Delivery, and Postpartum, and Amount of Blood Loss (12-16) | Rubin (1967)<br>Bampton & Mancini (1973)<br>Mercer (1977)<br>Lipson & Tilden (1980) |
| Labor Induction (17) | Macfarlane (1977) |
| Presence/Absence of a Support Person During Labor and/or Delivery (18 & 19) | Rubin (1967)<br>Affonso (1976)<br>Grace (1978)<br>Marut & Mercer (1979)<br>Lipson & Tilden (1980)<br>Cranley, Hedahl & Pegg (1983) |
| Length of Labor (20) | Marut & Mercer (1979)<br>Lipson & Tilden (1980) |
| Type of Delivery (21) | Affonso (1976)<br>Marut & Mercer (1979)<br>Birdsong (1981)<br>Cranley, Hedahl & Pegg (1983) |
| Reason for Performing a Cesaren Section (23) | Lipson & Tilden (1980) |
| Infant Feeding Mode (24) | Cranley, Hedahl & Pegg (1983) |
| MATERNAL QUESTIONNAIRE: | |
| Time to Prepare for a Cesarean Delivery (1) | Affonso & Stitchler (1978)<br>Lipson & Tilden (1980)<br>Birdsong (1981)<br>Cranley, Hedahl & Pegg (1983) |
| Recent Major Life Change | Marut (1978)<br>Miller (1981) |

questionnaire developed by Birdsong (1981). Instructions to Part II were developed so that subjects understood the type of response required by the researcher.

The final section of the questionnaire, Part III, contained three open-ended questions related to nursing care received by the subjects during their childbirth experiences. The subjects were also given an opportunity to add their own comments relevant to their childbearing experiences.

Two forms of the Maternal Questionnaire were developed: Form C for cesarean delivered women and Form V for vaginally delivered women. Word changes were made to the questionnaire in Appendix A, for vaginally delivered women, so that the questions would be meaningful for these subjects. An example of such a change is: "How did you feel during delivery?" instead of "How did you feel when you realized you were going to have a cesarean delivery?".

## Reliability and Validity of the Instruments

No information was given concerning the reliability and validity of the Maternal-Child Questionnaire used in Birdsong's (1981) study.. In this study reliability of the Maternal Questionnaire was addressed by comparing the similarities of responses within the questionnaire and also similarities between the data collected from the hospital record and the questionnaire. A number of the feelings and reasons for these feelings reported in questions 1 to 6 were also mentioned in the responses to questions 7 to 9. In addition, one-quarter of the subjects wrote detailed descriptions of their experiences in the extra space provided which indicated similar feelings and reasons for these feelings to those mentioned in items 1 to 9 of the questionnaire. No discrepancies were identified from these sources of information. Data collected from subjects' hospital records, such as route of delivery, were congruent with the information supplied by subjects, except in one instance. This instance was when subjects responded to the question "How did you feel during labor?" (question 1, Part II, Maternal Questionnaire) and the subject's delivery record indicated the subject did not have labor. This discrepancy appears to have arisen due to differences in the definition of labor between the subjects and the hospital personnel.

Part II and III of the Maternal Questionnaire were submitted to a panel of four nurses who had extensive experience in maternal child nursing practice, education, and research for the purpose of content validation. The cover letter used to elicit information concerning content validity appears in Appendix E. The panel were in agreement that the Maternal Questionnaire was appropriate for eliciting losses and feelings experienced during childbirth, as well as the aspects of nursing care valued. The instrument was revised to incorporate the panelists' suggestions concerning the examples given in the questionnaire.

The selection of factors to be correlated with losses and feelings reported by the subjects was guided by the literature concerning the cesarean birth experience. In addition, the form used to collect data from subjects' charts and Part I of the Maternal Questionnaire were reviewed by the panel of experienced maternal child nurses to ascertain the appropriateness of these variables. There was consensus among the panel members indicating that data concerning these variables was appropriate to collect for this study.

# CHAPTER FIVE

## DATA ANALYSIS AND DISCUSSION

The data collected in this study are presented and discussed in three sections: (a) characteristics of the study population and sample, (b) differences and similarities between the cesarean and vaginal groups in emotional reactions with respect to reported feelings, reasons subjects cited for their feelings reflecting loss, general impressions of childbirth, and impressions of nursing care; and (c) impact of selected demographic and obstetric factors on the emotional responses to childbirth.

## Characteristics of the Study Population and Sample

The population is described by comparing those subjects who responded to the Maternal Questionnaire to the nonrespondents on characteristics for which data were available. The sample is delineated by comparing the characteristics of the cesarean and vaginal respondents.

### Respondents and Nonrespondents

The data related to demographic and obstetric variables for respondents were compared with those for nonrespondents to ascertain if differences existed between these two groups. There were 73 respondents, 37 of whom delivered by cesarean section and 36 vaginally. There were 20 nonrespondents of whom 8 delivered by cesarean section and 12 vaginally. Statistical analysis was done on demographic and obstetric variables using the Statistical Package for the Social Sciences at the University of Alberta computer center. No statistically significant differences were identified between the respondents and nonrespondents on any of the 19 variables at $p<.05$. Chi square tests were done on the 14 nominal variables: race, marital status, previous surgery, fertility problems, prenatal class attendance, labor induction or augmentation, labor support, infant sex, infant feeding mode, indications for cesarean delivery, type of cesarean delivery, and physiological complications during three time periods pregnancy, delivery, and the hospital postpartum. The student's t-test was employed to analyze the data concerning age, length of labor, infant size, apgar scores, and length of postpartum stay. The t value for pooled variance estimate was used to determine the significance of difference between the groups.

## Cesarean and Vaginal Respondents

The cesarean and vaginal subjects were compared with respect to demographic and obstetric variables to demonstrate the composition of the study's sample. The Statistical Package for the Social Sciences, as cited in the previous section, was used to determine significant differences ($p<.05$) between these two groups. The Chi square test was done on nominal variables and the student's t test was done on interval/ratio variables.

## Demographic Variables

Six demographic variables were explored: age, race, marital status, the day postpartum on which the questionnaire was answered, previous surgical experience, and major life change during the past year. The cesarean (N=37) and vaginal (N=36) groups did not differ significantly on any of these variables.

The mean age of the cesarean subjects was 25.9 years and of the vaginal subjects was 24.6 years. The majority of subjects in each group were Caucasian (92%) and married (84%). The majority of subjects responded to the questionnaire on the fourteenth day after delivery. In each delivery group approximately 45% of the subjects had undergone surgery in adulthood, less than 15% underwent surgery as children, and 40% had never had surgery. Approximately 33% of the subjects in both groups identified a major life change in the past year and reported feelings reflecting loss in relation to the change. Further, 50% of the vaginal group and 41% of the cesarean group reported a major life change associated with gain, while 17% of vaginally delivered subjects and 26% of cesarean delivered subjects reported no major life change in the past year.

## Obstetric Variables

Data on fifteen obstetric variables were collected including: fertility problems, attendance at prenatal classes, preference for cesarean delivery, labor induction or augmentation, length of labor, support person's presence during labor or delivery, infant sex, infant size, apgar scores, infant feeding mode, length of postpartum stay, and physiological complications during the three periods of pregnancy, delivery and the hospital postpartum. These variables are discussed first in relation to differences between the cesarean and vaginal subjects and second in terms of significance between the two groups. Finally, those variables pertaining only to cesarean delivered subjects are highlighted.

Variables Proportionately Different Between Delivery Groups. Differences between the delivery groups were identified for eight of the 15 variables explored: prenatal class attendance, labor support, length of labor, infant size, length of postpartum stay, delivery support, delivery complications, and preference for cesarean delivery. The first five of these eight variables resulted in statistically significant differences, and are presented in Table 5.

The vaginal group attended prenatal classes significantly more frequently than the cesarean group and had a support person present during labor significantly

## TABLE 5
## OBSTETRIC FACTORS WHICH RESULTED IN SIGNIFICANT DIFFERENCES BETWEEN TYPE OF DELIVERY GROUPS

| | TYPE OF DELIVERY | | | | |
|---|---|---|---|---|---|
| | N=37 CESAREAN | | N=36 VAGINAL | | |
| FACTORS | N | % | N | % | p* |
| PRENATAL CLASS ATTENDANCE | | | | | 0.017 |
| Yes | 23 | 64 | 30 | 88 | |
| No | 13 | 36 | 4 | 12 | |
| TOTALS[1] | 36 | 100 | 34 | 100 | |
| LABOR SUPPORT | | | | | 0.007 |
| Yes | [illegible] | 76 | 35 | 97 | |
| No | 9 | 24 | 1 | 3 | |
| TOTALS | 37 | 100 | 36 | 100 | |

| | $\bar{X}$ | S.D. | $\bar{X}$ | S.D. | p |
|---|---|---|---|---|---|
| LENGTH OF LABOR (hours) | 11.1 | 5.4 | 7.8 | 5.5 | 0.026 |
| INFANT WEIGHT (grams) | 3694 | 459 | 3322 | 340 | 0.000 |
| POSTPARTUM STAY (days) | 5.7 | 1.6 | 3.8 | 0.6 | 0.000 |

*$p<.05$

[1] data for 3 subjects missing (1 cesarean and 2 vaginal)

more frequently than the cesarean subjects. The cesarean delivered infants were significantly heavier than the infants delivered vaginally, the cesarean group labored for significantly longer periods, and they remained in the hospital after delivery significantly longer than the vaginal group.

Due to hospital policy none of the cesarean delivered subjects had a support person present during delivery. In addition, general anesthesia was employed in all cesarean sections. Of the subjects delivering vaginally 89% had support persons present.

The vaginal and cesarean groups differed in the type of delivery complications which occurred, and these differences were due to the mode of delivery. Episiotomies were performed for 94% of vaginally delivered subjects and 28% had forcep deliveries. The majority (95%) of cesarean sections were performed by the lower segment horizontal incision. Only two cesarean sections were performed using the vertical classical midline incision. Fetal distress was noted in approximately 33% (12 subjects) of both delivery groups.

When the subjects were asked if they wanted to have a cesarean delivery, all vaginally delivered subjects responded that they did not compared with 62% of the 37 cesarean delivered subjects. Of the remaining cesarean subjects, five reportedly desired a cesarean delivery and nine indicated they had no choice.

Variables Proportionately Similar Between Delivery Groups. The cesarean and vaginal groups were similar with respect to the remaining seven obstetric variables: fertility problems, labor induction or augmentation, sex of the infant, apgar scores, infant-feeding mode, and complications of pregnancy and the hospital postpartum period.

Only five subjects had difficulty becoming pregnant and of these, four had cesarean deliveries. Neither induction nor labor augmentation was employed in 19% of the 73 deliveries. Of the remaining subjects, multiple methods of labor induction or augmentation were employed. Thirty-six percent of subjects were induced by means of oxytocin, prostaglandins were used in two cases, 23% of subjects had labor augmented with oxytocin, and in 42% of cases amniotomy was used to augment labor. Fifty-six percent of each group's infants were males. The first apgar scores of the newborns of both groups averaged 7.5 at birth. The mean second apgar score, at 5 minutes after birth, was 8.7. The majority of subjects (82%) breastfed their infants.

Forty-one percent of the 73 subjects had no pregnancy complications. Of the remaining subjects the most common complications were toxemia (n=13), infection (n=12), and antepartal bleeding (n=11). Eighty-four percent of subjects did not suffer from complications during the hospital postpartum period. Of the remaining subjects, seven contracted infections, one had a postpartum hemorrhage and one developed phlebitis.

Variables Relating Only to Cesarean Subjects. As previously noted some additional information concerning the cesarean delivered subjects was collected: the length of time they had to prepare for a cesarean delivery, the indications for cesarean delivery, and the type of cesarean delivery (with or without labor).

Preparation for cesarean delivery represents the length of time prior to delivery a woman was informed she might have a cesarean section. Two categories were defined, one day or less and longer than one day. Sixty-eight percent of the 37 subjects had one day or less to prepare for their cesarean deliveries, while 32% had more than one day to prepare.

Multiple indications were identified for performing the majority of cesarean sections. The most frequent of these were failure to progress in labor (57%), cephalopelvic disproportion (54%), and breech position (32%). Other indications included postmaturity, prolonged second stage, prolonged ruptured membranes, failed induction, failed forceps, and placental insufficiency.

Fourteen cesarean subjects did not have length of labor recorded on their delivery records although five subjects claimed to have had labor as reported on their

Maternal Questionnaires. Thus 62% of the 37 cesarean subjects experienced labor which could be identified by hospital personnel, 24% did not experience labor, and 14% experienced some labor but this was not identified by hospital personnel as labor.

## Emotional Reactions of the Cesarean and Vaginal Groups

In the following tabulations of emotional reactions to childbirth for the cesarean and vaginally delivered subjects differences of 10% (4 subjects) or greater between the two groups are indicated. The selection of a 10% difference was necessitated because of the small differences between groups. Similarities are highlighted when the proportions of both the cesarean and vaginal groups' reactions appear to be prominent, that is exceed 30% (11 subjects). Statistical tests were not employed in these analyses because the sample size was small and the number of variables related to emotional reactions was too large to achieve statistically meaningful results. Pertinent findings of other research studies are discussed in relation to the results of this study.

### Reported Feelings

To identify the categories of feelings which subjects reported, a review of the entire questionnaire was conducted to locate words connoting emotion used by the subjects to convey their affective states. Three distinct groups of feelings were identified: feelings reflecting gain, loss, and physiological states. Categories of feelings reflecting gain were: relief, happiness, excitement, confidence, calmness, and a feeling of being supported. Categories of the loss feelings were: anxiety, shock, disappointment, depression, anger, restlessness, and feelings of losing control. Categories of feelings reflecting physiological states were: pain, fatigue, and distorted perceptions. Appendix F contains a list of the words subjects used to describe their emotional states.

To obtain the frequency of feelings, the questionnaires were again reviewed and feelings were tabulated for each subject in the seven time intervals: 1) labor, 2) when cesarean subjects learned they were to have cesarean deliveries, 3) the half-hour prior to delivery, 4) delivery, 5) the first 24 hours after delivery, 6) the remaining time in hospital, and 7) from the time subjects arrived home until answering the questionnaire. If a subject expressed a particular feeling more than once, during any one specific interval that feeling was only counted once. In three instances the investigator was unable to ascertain the time interval of a particular feeling and they were therfore not tabulated. There were also four instances when a feeling was ambiguous (eg.

normal, natural) and where no further explanation was given. These responses were not tabulated.

An experienced maternal child nurse rated a random sample of five subjects' questionnaires to assess interrater reliability of the feelings' categories. Agreement on the type and frequency of feelings was assessed to be 0.865 by the statistic Kappa.

Data concerning the intensity of feelings were also collected by asking subjects to rate the strength of their feelings. The intent of gathering data on intensity of feelings was to identify and compare the cesarean and vaginal groups' strongest feelings. However, with the exception of three subjects who reported one mild feeling, subjects reported only their strongest feelings. Thus, analysis of intensity of feelings was not undertaken.

The frequencies with which cesarean and vaginally delivered subjects reported the categories of feelings during the seven time intervals follow. The differences between the delivery groups are discussed.

Feelings During Labor. The nine cesarean subjects reporting that they did not have any labor were excluded from this analysis. The vaginal group (N=36) reported feeling supported, happy, confident, relieved, and in pain proportionately more often than the cesarean group (N=28), as illustrated in Table 6.

TABLE 6
PROPORTION OF SUBJECTS REPORTING FEELINGS DURING LABOR BY TYPE OF DELIVERY

| | TYPE OF DELIVERY | |
|---|---|---|
| FEELINGS | CESAREAN N=28 N (%) | VAGINAL N=36 N (%) |
| FEELINGS REFLECTING GAIN: | | |
| Supported | 8 (29) | 19 (53) |
| Excited | 11 (39) | 13 (36) |
| Happy | 2 (7) | 9 (25) |
| Confident | 2 (7) | 6 (17) |
| Relieved | 1 (4) | 5 (14) |
| FEELINGS REFLECTING LOSS: | | |
| Anxious | 17 (61) | 19 (53) |
| Losing Control | 7 (25) | 6 (17) |
| Disappointed | 3 (11) | 4 (11) |
| Angry | 3 (11) | 2 (6) |
| Shocked | 2 (7) | 2 (6) |
| FEELINGS REFLECTING PHYSIOLOGICAL STATES: | | |
| Pain | 8 (29) | 14 (39) |
| Fatigued | 3 (11) | 3 (8) |

Since 53% of the vaginally delivered subjects felt supported compared with 29% of the cesarean delivered subjects, this may indicate that it was easier to provide support during labor when it progressed in the usual manner. Or, alternatively, women with uncomplicated labor may have felt they had adequate support because they were more satisfied with how their labors progressed. As indicated in the previous section, cesarean subjects labored for a significantly longer period and had a support person present during labor significantly less frequently than the vaginal subjects. These two factors may have influenced the subjects' reports of feeling supported.

Happiness, confidence, and relief may have been reported more frequently by the vaginal group than by the cesarean group because the vaginally delivered subjects' labors were effective in that they progressed to vaginal delivery. Since all vaginal subjects experienced the entire labor process including the most intense labor contractions, it was expected that they would report pain during labor more frequently than cesarean subjects.

The majority of both the cesarean and vaginal groups reported feeling anxious during labor. This anxiety was related to the subjects' fear concerning infant safety, and in addition for cesarean subjects both fear concerning personal safety and fear of surgery. Excitement that the infant would soon be born was reported by approximately one-third of both groups.

Feelings When Informed of the Need for Cesarean Delivery. This time period applies only to subjects delivering by cesarean section. For the 37 cesarean subjects the most predominant feelings expressed, when they learned that cesarean delivery was necessary, were those of relief (46%), disappointment (46%), and anxiety (35%) as illustrated in Table 7.

TABLE 7
PROPORTION OF CESAREAN SUBJECTS REPORTING FEELINGS WHEN THEY LEARNED THEY WERE TO HAVE CESAREAN DELIVERIES.

| FEELINGS | CESAREAN<br>N=37<br>N (%) |
|---|---|
| FEELINGS REFLECTING GAIN: | |
| Relieved | 17 (46) |
| Happy | 4 (11) |
| Supported | 3 (8) |
| Excited | 2 (5) |
| FEELINGS REFLECTING LOSS: | |
| Disappointed | 17 (46) |
| Anxious | 13 (35) |
| Losing Control | 5 (14) |
| Shocked | 5 (14) |
| Angry | 3 (8) |
| FEELINGS REFLECTING PHYSIOLOGICAL STATES: | |
| Pain | 3 (8) |

Some subjects had mixed reactions, relief that the baby would soon be born, and both disappointment and anxiety over the type of delivery. In contrast, fear was the most often reported feeling (88%) of the 105 cesarean delivered subjects in Affonso and Stichler's (1978) study. The discrepancy in findings may be due to the differences in data collection. In this study data were collected at 14 days after delivery, while in Affonso and Stichler's study data was collected as soon as the necessity for cesarean delivery was known.

Feelings Predelivery. Two subjects did not respond to this question on the Maternal Questionnaire (Part II, item 3). Those subjects who responded and who had delivered vaginally reported feeling supported and in pain proportionately more frequently than the cesarean group (Table 8). In contrast, the cesarean delivered subjects reported more feelings categorized as anxiety during the half-hour prior to delivering their infants.

TABLE 8
PROPORTION OF SUBJECTS REPORTING FEELINGS DURING THE HALF-HOUR PRIOR TO DELIVERY BY TYPE OF DELIVERY

| FEELINGS | TYPE OF DELIVERY<br>CESAREAN<br>N=35[1]<br>N (%) | <br>VAGINAL<br>N=36<br>N (%) |
|---|---|---|
| **FEELINGS REFLECTING GAIN:** | | |
| Excited | 8 (23) | 7 (19) |
| Supported | 2 (6) | 7 (19) |
| Relieved | 3 (9) | 3 (8) |
| Happy | 3 (9) | 2 (6) |
| Calm | 3 (9) | 1 (3) |
| **FEELINGS REFLECTING LOSS:** | | |
| Anxious | 17 (49) | 13 (36) |
| Losing Control | 6 (23)[2] | 10 (28) |
| Disappointed | 4 (11) | 2 (6) |
| Angry | 2 (6) | 2 (6) |
| **FEELINGS REFLECTING PHYSIOLOGICAL STATES:** | | |
| Fatigued | 7 (27)[2] | 9 (25) |
| Pain | 5 (19)[2] | 15 (42) |
| Distorted Perceptions | 3 (9) | 3 (8) |

[1] 2 subjects did not respond to this question.

[2] N=26, these categories were not applicable for 9 subjects as they did not experience labor.

The findings that vaginally delivered subjects reported feeling supported and being in pain more frequently prior to delivery than the cesarean delivered subjects were similar to the findings concerning these feelings during labor.

Since the vaginal subjects noted fear for infant safety as the reason for their feelings of anxiety and the cesarean subjects noted this reason and in addition indicated fear for personal safety and fear of surgery, it was not unexpected that the cesarean subjects reported anxiety more frequently. It is interesting to note that 92% of Affonso and Stichler's (1978) cesarean delivered subjects reported fear prior to delivery compared to this study's findings of 49% for cesarean subjects. Further, distorted perceptions were reported by 48% of Affonso and Stichler's cesarean subjects in the operating room but were identified by only 3 subjects (7%) in this study. The difference in timing of data collection may have influenced these results.

Feelings During Delivery. As all the cesarean subjects had general anesthesia, only vaginal subjects were conscious during delivery, and these subjects were asked to describe their feelings during this time interval. Feelings of happiness, excitement, and anxiety were most often cited (Table 9). Happiness and excitement were related to the infant's birth and anxiety was felt in relation to the infant's safety.

TABLE 9
PROPORTION OF VAGINAL SUBJECTS REPORTING FEELINGS DURING DELIVERY

| FEELINGS | VAGINAL<br>N=36<br>N (%) |
|---|---|
| FEELINGS REFLECTING GAIN: | |
| Happy | 17 (47) |
| Excited | 12 (33) |
| Relieved | 10 (28) |
| Supported | 7 (19) |
| Confident | 3 (8) |
| FEELINGS REFLECTING LOSS: | |
| Anxious | 12 (33) |
| Losing Control | 6 (17) |
| Disappointed | 4 (11) |
| FEELINGS REFLECTING PHYSIOLOGICAL STATES: | |
| Fatigued | 8 (22) |
| Pain | 3 (8) |
| Distorted Perceptions | 2 (6) |

Feelings After Delivery. Two cesarean subjects did not respond to the question concerning feelings during the first 24 hours following delivery (Maternal Questionnaire, Part II, item 4). A larger proportion of the vaginally delivered subjects reported feeling happy compared with the cesarean delivered subjects, while cesarean subjects reported feelings of depression and that their perceptions were distorted more frequently (Table 10). Approximately one-third of both groups reported feeling fatigued at this time. It is probable that higher reports of depression by the cesarean subjects resulted in lower reports of happiness.

### TABLE 10
### PROPORTION OF SUBJECTS REPORTING FEELINGS DURING THE FIRST 24 HOURS AFTER DELIVERY BY TYPE OF DELIVERY

| | TYPE OF DELIVERY | |
|---|---|---|
| FEELINGS | CESAREAN N=35[1] N (%) | VAGINAL N=36 N (%) |
| **FEELINGS REFLECTING GAIN:** | | |
| Happy | 17 (49) | 22 (61) |
| Excited | 8 (23) | 11 (31) |
| Relieved | 7 (20) | 9 (25) |
| Supported | 4 (11) | 3 (8) |
| Calm | 1 (3) | 3 (8) |
| **FEELINGS REFLECTING LOSS:** | | |
| Shocked | 4 (11) | 4 (11) |
| Anxious | 2 (6) | 3 (8) |
| Angry | 3 (9) | 1 (3) |
| Depressed | 4 (11) | 0 (0) |
| Disappointed | 1 (3) | 2 (6) |
| **FEELINGS REFLECTING PHYSIOLOGICAL STATES:** | | |
| Fatigued | 11 (31) | 12 (33) |
| Pain | 8 (23) | 7 (19) |
| Distorted Perceptions | 11 (31) | 1 (3) |

[1] 2 subjects did not respond to this question.

The distorted perception reported by 11 cesarean delivered subjects may have been due to the use of general anesthesia and/or narcotic analgesia, or they may reflect the sense of suspended animation identified by Lipson and Tilden (1980) as the first phase in the psychological integration of cesarean childbirth. Affonso and Stichler's (1978) findings of cesarean subjects' feelings during a similar time period indicated that 70% reported feeling relieved and 51% reported anxiety. Again, the difference in timing of data collection may have influenced these results.

Feelings During Hospitalization. Feelings during the hospital stay included only those reported after the first 24 hours following delivery. The vaginal subjects reported feeling happy, anxious, and fatigued more frequently during this period than the cesarean group (Table 11). The cesarean delivered subjects reported feelings of support, disappointment, and depression more frequently. Further, approximately one-third of both groups cited feelings of restlessness and anger during this time interval.

TABLE 11
PROPORTION OF SUBJECTS REPORTING FEELINGS DURING THE HOSPITAL STAY EXCLUDING THE FIRST 24 HOURS BY TYPE OF DELIVERY.

| | TYPE OF DELIVERY | |
|---|---|---|
| FEELINGS | CESAREAN N=37 N (%) | VAGINAL N=36 N (%) |
| FEELINGS REFLECTING GAIN: | | |
| Supported | 20 (54) | 11 (31) |
| Happy | 8 (22) | 15 (42) |
| Excited | 6 (16) | 3 (8) |
| Calm | 3 (8) | 6 (17) |
| Confident | 2 (5) | 4 (11) |
| FEELINGS REFLECTING LOSS: | | |
| Restless | 14 (38) | 14 (39) |
| Angry | 12 (32) | 13 (36) |
| Disappointed | 10 (27) | 4 (11) |
| Anxious | 4 (11) | 9 (25) |
| Depressed | 8 (22) | 2 (6) |
| Shocked | 3 (8) | 1 (3) |
| FEELINGS REFLECTING PHYSIOLOGICAL STATES: | | |
| Pain | 8 (22) | 5 (14) |
| Fatigued | 2 (5) | 8 (22) |

It is reasonable to assume that subjects who report feelings of disappointment and depression will not report feelings of happiness. This may in part account for the proportion of cesarean subjects reporting these feelings. Since cesarean subjects reported feelings of disappointment and depression more frequently than vaginally delivered subjects, they may have been grieving over the losses they experienced during childbirth. Lipson and Tilden's (1980) findings indicated that feelings of disappointment, depression and anger occur during this second phase of the psychological integration of cesarean childbirth.

The cesarean group may have reported feeling supported more frequently and fatigued less often than the vaginal group because they had significantly longer postpartum hospitalization periods, approximately six days compared to four for the vaginal group. Cesarean delivered subjects were exposed to nursing care for a longer period of time which may have resulted in feelings of being supported. In addition, a longer hospitalization may have afforded the opportunity for more rest. It is also possible that nurses feel women require more support and rest after cesarean delivery in contrast to the requirements after vaginal delivery, and thus provide support and the opportunity for rest. The shorter postpartum hospitalization period for the vaginally delivered subjects may have also contributed to their increased feelings of anxiety in comparison with cesarean subjects, since the vaginal group would have less time to develop infant care skills.

Feelings at Home. From the time of arriving home until the questionnaire was answered, the cesarean subjects reported feeling happy and disappointed proportionately more often than the vaginal group, whereas the vaginal group reported confidence and anxiety more frequently (Table 12). It is possible that the significantly longer postpartum hospitalization period of the cesarean group may have resulted in increased feelings of happiness when they eventually arrived home. In addition, they may have felt less confident than the vaginal group when answering their questionnaires, because they would have had a shorter period of time at home in which to develop confidence in their mothering abilities.

TABLE 12
PROPORTION OF SUBJECTS REPORTING FEELINGS AFTER ARRIVING HOME BY TYPE OF DELIVERY

| | TYPE OF DELIVERY | |
|---|---|---|
| FEELINGS | CESAREAN N=37 N (%) | VAGINAL N=36 N (%) |
| FEELINGS REFLECTING GAIN: | | |
| Happy | 27 (73) | 20 (56) |
| Excited | 4 (11) | 3 (8) |
| Calm | 4 (11) | 6 (17) |
| Confident | 2 (5) | 8 (22) |
| Supported | 2 (5) | 1 (3) |
| FEELINGS REFLECTING LOSS: | | |
| Anxious | 11 (30) | 15 (42) |
| Disappointed | 9 (24) | 5 (14) |
| Depressed | 5 (14) | 6 (17) |
| Angry | 4 (11) | 1 (3) |
| Shocked | 0 (0) | 3 (8) |
| FEELINGS REFLECTING PHYSIOLOGICAL STATES: | | |
| Fatigued | 10 (27) | 10 (28) |

While vaginally delivered subjects reported anxiety concerning their mothering abilities, cesarean delivered subjects reported frustration and disappointment in themselves concerning their abilities to mother. Disappointment in mothering skills was reported by the cesarean subjects of Lipson and Tilden's (1980) study, during a similar time period.

## Summary

Four feelings were commonly reported by all subjects: happiness, support, anxiety, and disappointment. Happiness was reported proportionately more often by the vaginal group during labor and 24 hours after delivery, whereas the cesarean group reported happiness more often after arriving home. It appears that the vaginally delivered subjects were happier with their childbirth experiences during their hospitalizations than the cesarean subjects; however, after arriving home the cesarean delivered subjects reported happiness with greater frequency. Although there were differences of 10% or greater between the groups, reported happiness, as depicted in Figure 2, shows similar peaks and valleys for both groups during the time intervals of this study.

Feelings of support for both groups were highest during labor and decreased until the first 24 hours after delivery. During the remainder of the hospital stay these feelings peaked again (Figure 3). The vaginally delivered subjects reported support proportionately more often during labor and less often during the hospital stay. It is probable that support is easier to provide when labor follows an expected pattern and progresses to vaginal delivery. In contrast, nurses would appear to provide support more frequently after cesarean than after vaginal delivery. It is also possible that cesarean subjects, who had longer postpartum hospitalizations, may have been

FIGURE 2. PROPORTION OF SUBJECTS REPORTING HAPPINESS DURING THE SEVEN TIME INTERVALS OF THIS STUDY.

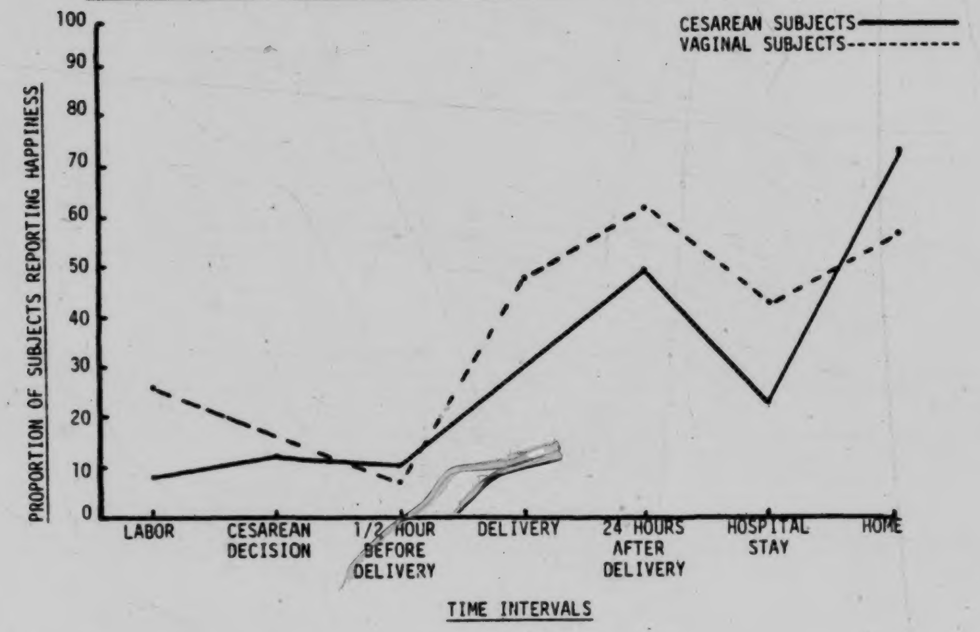
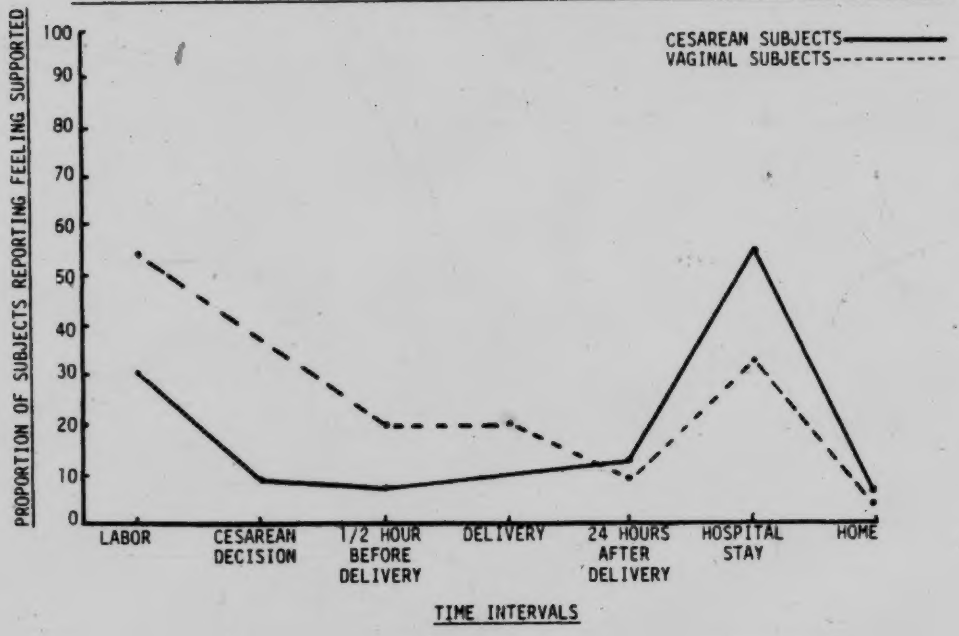


FIGURE 3. PROPORTION OF SUBJECTS REPORTING FEELING SUPPORTED DURING THE SEVEN TIME INTERVALS OF THIS STUDY.



exposed to nurses' support for a longer period of time and thus reported it more often.

The reporting of anxiety by both groups showed similarities. During labor, feelings of anxiety ran high and decreased to a low point 24 hours after delivery. Anxiety began to increase again after this 24 hour period and continued to rise after the subjects arrived home (Figure 4). The high anxiety during labor and up to delivery appeared to be related to the subjects' concern for the safety of their infants. Anxiety seemed to rise when discharge was anticipated and after arriving home, which perhaps reflected the subjects' concerns over their mothering capabilities.

The trend in reporting feelings of disappointment differed between the groups. The cesarean group most often reported disappointment at two time intervals, on learning of their impending cesarean deliveries and during the hospital stay (Figure 5), and both peaks appeared to be related to loss of their expected delivery experiences. Subjects were disappointed that they had not been able to deliver the "natural way". The vaginal group reported disappointment infrequently over all the time intervals.

## Sources of Feelings Reflecting Loss

The sources subjects cited for the feelings that were categorized as reflecting loss were termed losses. The losses that subjects experienced were identified by

FIGURE 4. PROPORTION OF SUBJECTS REPORTING ANXIETY DURING THE SEVEN TIME INTERVALS OF THIS STUDY.

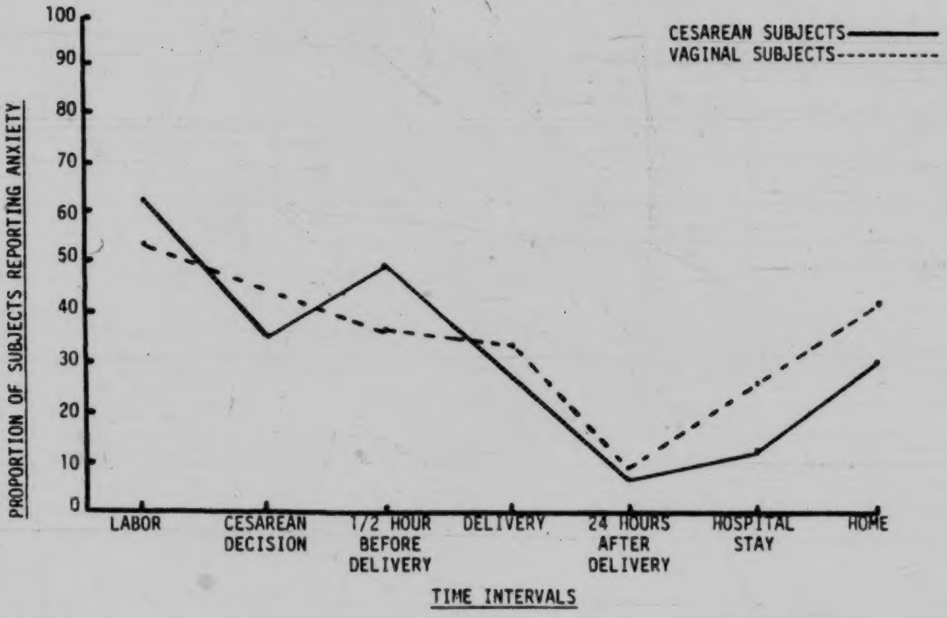
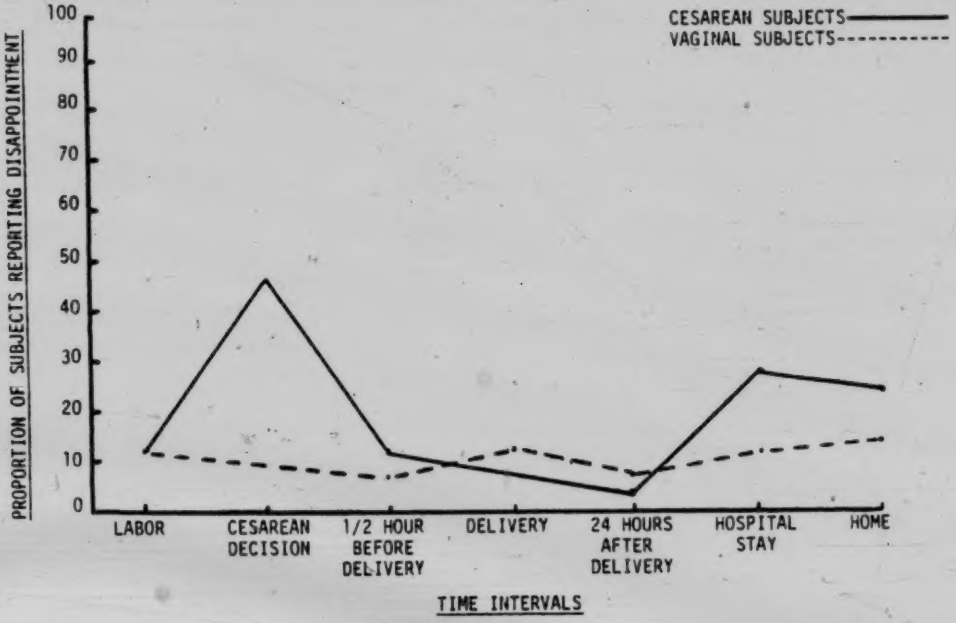


FIGURE 5. PROPORTION OF SUBJECTS REPORTING DISAPPOINTMENT DURING THE SEVEN TIME INTERVALS OF THIS STUDY.



reviewing the entire questionnaire for responses which indicated that a subject had experienced a change in the symbolic qualities or characteristics attributed to herself, in her social roles or identity, or in her biophysical self. In addition, when a subject indicated an undesireable discrepancy between what she had expected and what actually happened, this was categorized as a loss. Six categories of loss were identified: losses related to optimal birth experience, control and power over self and the environment, self-esteem, anticipated loss of health or life, optimal bonding experience, and body image. Subcategories were identified for the first four of these groups to clarify the subjects' sources of feelings reflecting loss.

*Loss related to optimal birth experience* consisted of losses related to optimal prenatal experience, optimal labor experience, optimal delivery experience, and optimal postpartum experience.

*Losses related to control and power over self and the environment* were grouped into losses related to control during labor, power over the hospital environment, and power over the home environment.

*Losses related to self-esteem* were categorized according to losses of self-esteem experienced in conjunction with the labot experience, mothering abilities, and nursing care received.

*Anticipated loss of health or life* was identified when subjects reported fear for their infants' health or life, fear for their own health or life, and also when surgery was feared. Fear of surgery was interpreted as anticipation of loss without conceptualizing a particular loss.

Examples of losses as described by the subjects can be found in Appendix G. To obtain the frequency of losses the questionnaires were again reviewed and each subject's losses were tabulated. If a respondent mentioned a particular loss more than once that loss was recorded only once.

An experienced maternal child nurse rated a random sample of five subjects' questionnaires to assess interrater reliability of the loss categories. Agreement on the type and frequency of losses was assessed to be 0.913 by the statistic Kappa.

In the following tabulations of cesarean and vaginally delivered subjects' losses, differences of 10% (4 subjects) or greater between these groups are indicated. Similarities are highlighted when the proportions of both the cesarean and vaginal groups' losses exceed 30% (11 subjects). The differences and similarities in losses between the cesarean and vaginal groups follow.

## Differences

A larger proportion of the 37 cesarean delivered subjects reported losses related to optimal delivery experience, control during labor, optimal prenatal experience, and fear for personal safety than the 36 vaginal subjects. On the other hand, a greater proportion of the vaginal group reported losses related optimal labor experience. While 33% of the cesarean group experienced loss related to fear of surgery,no such loss was reported by the vaginal group (Table 13).

The greatest proportional difference between the two groups was in the category of loss related to optimal delivery experience. Cesarean delivery was thought to be abnormal or unnatural by the cesarean subjects, and since these women did not witness the birth of their infants it is not surprising that this loss was more pronounced. Birdsong (1981) found that the reported incidence of loss related to optimal birth experience was significantly higher for cesarean than for vaginally delivered subjects. Marut and Mercer (1979) indicated that vaginally delivered subjects in their sample had viewed their birth experiences as positive, whereas cesarean subjects had seen their birth experiences in a negative light.

Since the average length of labor for the cesarean group was significantly longer than that of the vaginal group, it was assumed that the cesarean delivered subjects would indicate loss related to control over self and the events directly related to the labor process more frequently. The findings of two research studies supported this assumption. Marut and Mercer (1979)

TABLE 13
PROPORTION OF SUBJECTS REPORTING REASONS FOR FEELINGS REFLECTING LOSS BY TYPE OF DELIVERY

| | TYPE OF DELIVERY | |
|---|---|---|
| | CESAREAN<br>N=37 | VAGINAL<br>N=36 |
| LOSSES RELATED TO: | N (%) | N (%) |
| OPTIMAL LABOR EXPERIENCE | 23 (62) | 27 (75) |
| FEAR FOR INFANT SAFETY | 20 (54) | 20 (56) |
| OPTIMAL DELIVERY EXPERIENCE | 26 (70) | 10 (28) |
| SELF-ESTEEM (MOTHERING) | 15 (41) | 18 (50) |
| SELF-ESTEEM (NURSING CARE) | 17 (46) | 14 (39) |
| POWER (HOME) | 13 (35) | 14 (39) |
| POWER (HOSPITAL) | 10 (27) | 12 (33) |
| CONTROL (LABOR) | 11 (39)[1] | 10 (28) |
| BODY IMAGE | 11 (30) | 9 (25) |
| SELF-ESTEEM (LABOR) | 6 (21)[1] | 10 (28) |
| FEAR OF SURGERY | 13 (35) | N/A |
| OPTIMAL POSTPARTUM EXPERIENCE | 5 (14) | 6 (17) |
| OPTIMAL BONDING EXPERIENCE | 7 (19) | 4 (11) |
| OPTIMAL PRENATAL EXPERIENCE | 7 (30)[2] | 3 (10)[3] |
| FEAR FOR PERSONAL SAFETY | 5 (14) | 0 (0) |

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[1] N=28, category not applicable for 9 subjects as they did not have labor.

[2] N=23, 23 cesarean subjects attended prenatal classes.

[3] N=30, 30 vaginal subjects attended prenatal classes.

indicated that their vaginally delivered subjects had positive feelings concerning their effective labors compared with cesarean subjects who had negative feelings about their ineffective labors. Similarly, Birdsong (1981) found that loss of control and power over self and the situation was reported more frequently by cesarean subjects as compared with their vaginal counterparts, though she found a proportionately larger difference (40%) than was found in this study (11%).

Loss related to optimal prenatal experience reflected that the cesarean subjects' birth experiences were least likely to have been anticipated prenatally. Though information concerning prenatal experiences was not specifically elicited, 7 (30%) of the 23 cesarean subjects who attended prenatal classes commented on the lack of preparation for cesarean delivery and also the inapplicability of the course material to their childbirth experiences. Only three of the 30 vaginally delivered subjects who attended prenatal classes were dissatisfied with some part of the course material concerning the labor experience.

Fear for personal safety was reported exclusively by the cesarean group. It is reasonable to assume that the threat of general anesthesia and major surgery were related to this result. It was surprising to find that only five subjects (14%) indicated this loss, in light of Affonso and Stichler's findings (1978). They collected data prior to delivery and 88% of their cesarean subjects (N=105) reported fear for their own safety. Moreover, Marut and Mercer (1979) collected data at two to four days postpartum and found that a high proportion of cesarean subjects (75%) reported fear of death. It may be difficult to recall fear for personal safety at 14 days after delivery; however, cesarean delivery may also not have been perceived as a threat to life by the subjects of this study. Fear of surgery was applicable only to the cesarean subjects and this loss was reported to a greater extent (35%) than fear for personal safety (14%). Twenty percent of the cesarean delivered subjects of Birdsong's (1981) study reported fear of surgery and anticipated loss of life.

It was surprising that 75% of vaginally delivered subjects did not achieve their anticipated labor experience. Since the vaginal group had attended prenatal classes and had a support person present during labor significantly more frequently than the cesarean group, it may be that the vaginally delivered subjects had higher expectations of themselves during the labor experience.

## Similarities

The majority of both cesarean and vaginal groups indicated the category anticipated loss of the infant's health or life. The categories of loss related to self-esteem concerning both mothering and nursing care, and power over the home environment were indicated by more than one-third of each delivery group.

Considerable concern was exhibited by both the cesarean and vaginal groups for the health or life of their infants. Birth itself appeared to be seen as a threat to the infant's safety. Affonso and Stichler (1978) found that a similar proportion of their cesarean subjects expressed fear for their infants' safety.

Self-esteem was threatened to the same extent for both delivery groups. Thus, undergoing cesarean delivery did not appear to predispose these subjects to difficulties with self- esteem any more than did vaginal delivery. This finding was in oppostion to that of Birdsong's (1981). She found that cesarean delivered subjects reported loss of self-esteem and self-confidence significantly more frequently than vaginally delivered subjects. Also, Marut and Mercer (1979) indicated that the birth experience contributed to increased self-esteem for vaginally delivered subjects and decreased self-esteem for cesarean delivered subjects.

Perceived power and control exerted over one's home environment was indicated as a loss by similar proportions of cesarean and vaginally delivered subjects. This loss largely reflected subjects' reports that the infant regulated the home environment, especially the amount of sleep time available. In contrast, Birdsong (1981) found that cesarean delivered subjects reported loss of control and power over self and the situation significantly more often than vaginally delivered subjects.

## Summary

The majority of losses were reported by similar proportions of both the cesarean and vaginally delivered groups. As expected the most striking difference between these groups involved loss of optimal delivery experience, with cesarean subjects reporting loss of their expected delivery to the greatest extent. In general, the literature related to cesarean childbirth conveyed the notion that cesarean delivery was associated with loss more often than vaginal delivery. Moreover, in the literature , losses related to body image (Birdsong, 1981) and optimal bonding experience (Marut & Mercer, 1979) were found to be reported significantly more often by cesarean compared with vaginally delivered subjects. There were no differences in the reporting of these two losses between the cesarean and vaginally delivered subjects of this study. The most striking finding of this study was that the vaginally delivered subjects reported a large number of losses in response to childbirth.

Methodological Differences Between This and Other Research Studies. It is probable that the findings of this study deviate from the results of other studies

(Affonso & Stichler, 1978; Marut & Mercer, 1979; Birdsong, 1981; Cranley, Hedahl & Pegg, 1983) due to the instruments used, the time of data collection, the method of data collection, and the selection of subjects. Only the studies of Marut and Mercer (1979) and Cranley, Hedahl and Pegg (1983) incorporated some form of quantitative measure of emotional reactions. Data were collected approximately two weeks postpartum by mailed questionnaire in this study and in Birdsong's (1981) study, in comparison to the other three studies, where data collection took place during the childbirth experience up to four days postpartum by the interview method. Finally subject selection was commonly by convenience sampling, though this was the point of departure between Birdsong's and this study.

Birdsong's (1981) sample criteria were more stringent than the criteria used in this study. She selected married subjects who were private patients in the American health care system, who had all attended prenatal classes, and the cesarean subjects were involved in a local support group. Although convenience sampling was employed in this study, the sample was more heterogeneous. No restrictions were used with regards to socioeconomic status, marital status, or attendance at prenatal class. Attendance at a cesarean support group was not specifically determined but in response to the open ended questions no subject mentioned a support group; therefore, it is unlikely that any subject was involved in one. Birdsong's subjects and those in this study appear to have differed on a number of critical factors (marital status, socioeconomic status, participation in a cesarean support group, and attendance at prenatal classes) which may help account for the difference in findings.

Birdsong achieved a 50% response rate and no information was presented on nonrespondents. In this study a 78% response rate was achieved and a profile of nonrespondents compiled. No significant differences between respondents and nonrespondents on demographic and obstetric characteristics were identified. More generalized categories were used in Birdsong's analysis. She found that the cesarean subjects reported a number of losses and feelings reflecting loss significantly more often than vaginally delivered subjects. The results of the present study indicated that emotional reactions to either the vaginal or cesarean childbirth experience were in general very similar. In fact, greater proportional differences were found within the cesarean group, that is between those who had labored and those who had not, than between cesarean and vaginally delivered subjects.

## General Impressions of Childbirth

These impressions included the subjects' reports of the most positive and least positive aspects of their childbirth experiences. In addition, the differences between what subjects expected and what they perceived to have occurred during childbirth were identified. The researcher anticipated that the subjects would provide one response to identify their most and least positive experiences. However, some subjects made several responses.

## Most Positive Aspects of Childbirth

Two subjects did not respond to the question "What was most positive [about your childbirth experience]?". It was found that the birth of the infant, presence of a support person, nursing care received, seeing the birth of the infant, labor, pregnancy, and/or the postpartum course were reported to be the most positive aspects of childbirth. The cesarean group cited the infant's birth proportionately more often than the vaginal group (Table 14). Seeing the birth of the infant was cited as most positive by one-third of the vaginal group. This category was not applicable to the cesarean delivered subjects because they delivered under general anesthesia. It appears that the vaginal group's reports of seeing the birth of the infant decreased the proportion of vaginally delivered subjects who reported the birth itself as most positive.

TABLE 14
PROPORTION OF SUBJECTS REPORTING THEIR MOST POSITIVE ASPECTS OF CHILDBIRTH BY TYPE OF DELIVERY

| | TYPE OF DELIVERY | |
|---|---|---|
| | CESAREAN | VAGINAL |
| | N=35[1] | N=36 |
| ASPECTS | N (%) | N (%) |
| BIRTH OF THE INFANT | 26 (74) | 18 (50) |
| SUPPORT PERSON'S PRESENCE | 5 (14) | 10 (28) |
| NURSING CARE | 6 (17) | 7 (19) |
| SEEING THE BIRTH | N/A | 12 (33) |
| LABOR | 2 (7)[2] | 6 (17) |
| PREGNANCY | 2 (6) | 2 (6) |
| POSTPARTUM COURSE | 3 (9) | 1 (3) |

[1] 2 subjects did not respond to this question.
[2] N=27, 8 of the 35 subjects did not have labor.

The presence of a support person during labor and the labor experience itself were reported to be the most positive aspects of childbirth proportionately more frequently by the vaginal than by the cesarean group. Perhaps this was due to the fact that the vaginal group had a support person present during labor significantly more often than the cesarean group, and also the vaginally delivered subjects had support persons present during delivery. Subjects reporting labor as the most positive aspect of their childbirth experiences generally felt they were in control throughout their labors.

## Least Positive Aspects of Childbirth

Six subjects did not respond to the question "What was least positive [about your childbirth experience]?". The least positive aspects of childbirth reported by the remaining subjects were: labor; the postpartum course; having a cesarean delivery and being unable to witness the delivery; nursing care received; delivery; having to wait to see, hold, or feed the infant; pregnancy; or the support person's inability to witness the delivery. For the cesarean delivered subjects, the cesarean delivery was cited most frequently as the least positive aspect of childbirth (Table 15). Labor was reported as least positive by the vaginal group,which was double the incidence reported by the cesarean group. The vaginal subjects experienced the entire labor process including

TABLE 15
PROPORTION OF SUBJECTS REPORTING THEIR LEAST POSITIVE ASPECTS OF CHILDBIRTH BY TYPE OF DELIVERY

| | TYPE OF DELIVERY | |
|---|---|---|
| ASPECTS | CESAREAN N=32[1] N (%) | VAGINAL N=35[2] N (%) |
| LABOR | 8 (30)[3] | 22 (63) |
| POSTPARTUM COURSE | 7 (22) | 7 (20) |
| CESAREAN DELIVERY | 12 (38) | N/A |
| NURSING CARE RECEIVED | 3 (9) | 4 (11) |
| DELIVERY | N/A | 5 (14) |
| SEPARATION FROM INFANT | 3 (9) | 1 (3) |
| PREGNANCY | 0 (0) | 4 (11) |
| SUPPORT PERSON'S ABSENCE | 3 (9) | 0 (0) |

[1] 5 cesarean subjects did not respond to this question.

[2] 1 vaginal subject did not respond to this question.

[3] N=27. 5 of the 32 subjects did not have labor.

the most intense labor contractions, whereas the cesarean delivered subjects who labored did not progress as far in labor.

Approximately one-third of the cesarean subjects reported their deliveries as the least positive aspect of childbirth. This was a smaller proportion than anticipated, as 70% reported loss related to optimal delivery experience. It appears that a proportion of these subjects had resolved this loss.

Pregnancy was cited as least positive by 11% of the vaginal group, whereas the cesarean group did not report this aspect as least positive. Perhaps after a cesarean delivery, difficulties of pregnancy did not seem as significant as they might after vaginal delivery.

Comparison Between Expectations and Reality

Seven subjects did not respond to the question "How did your childbirth experience compare to what you thought it would be like?". The comparison of subjects' perceived childbirth experiences and their expected experiences showed that labor, delivery or the postpartum course was more difficult than expected; delivery was by cesarean section thus the birth was not witnessed or was not vaginal; labor or delivery was less difficult than expected; or the subject delivered farther from home than she expected.

The most frequently reported deviation from expected childbirth experiences for vaginal subjects (N=32) was the difficulty of labor, and for cesarean subjects (N=34) was the cesarean delivery (Table 16). It seemed somewhat surprising that 78% of the vaginal group did not expect labor to be as difficult as it was. Apparently the vaginally delivered subjects had high expectations of their ability to cope with labor. Since cesarean delivery was unanticipated by 68% of the cesarean group, in the majority of cases the decision to perform cesarean delivery seems to have been made under emergency circumstances.

TABLE 16

PROPORTION OF SUBJECTS REPORTING DIFFERENCES BETWEEN WHAT THEY HAD EXPECTED OF CHILDBIRTH AND WHAT ACTUALLY HAPPENED BY TYPE OF DELIVERY

| | TYPE OF DELIVERY | |
|---|---|---|
| | CESAREAN N=34[1] | VAGINAL N=32[2] |
| DIFFERENCES | N (%) | N (%) |
| LABOR WAS MORE DIFFICULT | 9 (33)[3] | 25 (78) |
| DELIVERY WAS BY CESAREAN | 23 (68) | N/A |
| DELIVERY WAS MORE DIFFICULT | N/A | 11 (34) |
| POSTPARTUM WAS MORE DIFFICULT | 4 (12) | 4 (13) |
| LABOR WAS LESS DIFFICULT | 3 (11)[3] | 5 (16) |
| DELIVERY WAS LESS DIFFICULT | N/A | 6 (19) |
| DELIVERED FAR FROM HOME | 2 (6) | 1 (3) |

[1] 3 cesarean subjects did not respond to this question.

[2] 4 vaginal subjects did not respond to this question.

[3] N=27, 7 of the cesarean subjects did not have labor.

Delivery was more difficult than expected for 33% of the vaginal group. Most of these subjects had shorter labors and found labor less difficult than expected. Presumably when labor was short, delivery came as a surprise and thus appeared to be more difficult to manage.

## Summary

The infant's birth was identified as the most positive aspect of childbirth. However, some of the reactions related to the labor experience in the vaginal group and to the delivery experience in the cesarean group were unexpected. The labor experience of vaginal subjects was repeatedly cited as problematic. Labor was considered to be a source of loss and the amount of discomfort during labor was generally not anticipated by these subjects. However, several subjects did not think there was any way to prepare new mothers for the experience of labor, "It has to be felt to be truly understood".

Since 70% of the cesarean group reported loss related to optimal delivery experience, it was an unexpected finding that 38% reported their deliveries as the least positive aspect of childbirth. Though the loss was suffered and cesarean delivery differed from what was expected, apparently many subjects felt the cesarean delivery was justified and thus did not report it as the least positive aspect of their childbirth experiences.

The sheer number of losses indicated by subjects set the stage for grieving to take place, however, the findings concerning the feelings reported by subjects did not bear out this phenomenon. Feelings reflecting gain predominated during many time intervals. Since giving birth to a healthy infant was cited as the most positive aspect of childbirth by the majority of subjects, it appeared that the gain of a healthy infant overshadowed the losses experienced.

## Nursing Care

The aspects of nursing care perceived by the subjects of this study as being most helpful and least helpful were explored,and suggestions for improving nursing care were sought. Data concerning each of these three areas were identified in the subjects' responses to Part III of the Maternal Questionnaire, and classifications were devised. The questionnaires were then reviewed and each subject's responses were classified and tabulated. The majority of subjects responded to the question pertaining to helpful aspects of nursing care; while approximately half commented on aspects of nursing care which were not helpful and suggestions for improving nursing care. Consequently, the conclusions drawn from these data are tentative. In French's (1981) review of hospital patients' opinion surveys, she found evidence suggesting that patients are more likely to voice criticism while they are still in hospital rather than after discharge.

## Most Helpful Aspects of Nursing Care

The aspects of nursing care which the 68 subjects who responded to this question reported to be helpful were categorized as:

1. Positive Nurse Attitudes (i.e. helpful, concerned, caring, patient, kind, optimistic, efficient, easily accessible)
2. Infant care instruction (i.e. bathing, feeding, general care, practice of these tasks)
3. Modes of providing information (i.e. explaining, offering hints, answering question, encouraging, questions providing time to talk, keeping subject informed of her progress, giving direct clear information)
4. Physical care postpartum (i.e. giving a bed bath, caring for the baby, encouraging self and baby care, assisting with breast care, providing ice)
5. Labor care (i.e. checking on the subject, assisting with breathing exercises, coaching, encouraging walks, promoting confidence and relaxation, relieving husband, providing support concerning cesarean delivery)
6. Continuity of nursing care (i.e. same nurse each day postpartum)

A majority of both groups reported that positive nurse attitudes were the most helpful aspects of nursing care (Table 17), followed by the information provided by nurses. Thus the psychosocial skills of the nurse appeared to be most valued by the subjects in this study.

The vaginally delivered subjects (N=36) reported that the nursing care provided during labor was most helpful more often than the cesarean delivered subjects (N=32). As previously indicated in the section "Reported Feelings",it may have been more difficult for nurses to provide labor care for subjects experiencing unexpected problems during labor.

TABLE 17
PROPORTION OF SUBJECTS REPORTING HELPFUL ASPECTS OF NURSING CARE BY TYPE OF DELIVERY

| | TYPE OF DELIVERY | | | |
|---|---|---|---|---|
| | CESAREAN N=32[1] | | VAGINAL N=36 | |
| ASPECTS | N | (%) | N | (%) |
| POSITIVE NURSE ATTITUDES | 21 | (66) | 21 | (58) |
| INFANT CARE INSTRUCTION | 14 | (44) | 16 | (44) |
| INFORMATION PROVISION | 10 | (31) | 10 | (28) |
| POSTPARTUM PHYSICAL CARE | 8 | (25) | 9 | (25) |
| LABOR CARE | 4 | (15)[2] | 9 | (25) |
| CONTINUITY OF NURSING CARE | 2 | (6) | 0 | (0) |

[1] 5 cesarean subjects did not respond to this question.

[2] 6 of the 32 cesarean subjects did not have labor.

## Least Helpful Aspects of Nursing Care

Aspects of nursing care deemed least helpful by the 38 subjects who answered this question were categorized as:

1. Negative nurse attitudes (i.e. impersonal,

demoralizing manner, impatient, blunt, uncaring, unavailable, poor bedside manner)

2. Physical care (i.e. subject felt unattended, nurse did not monitor contractions, lack of assistance with breathing, too little rest time, subject was expected to be up too soon after delivery, student nurse's presence was tiring, nurses were different each day)
3. Provision of inadequate information concerning hospital routines, medication, breast care, infant care, or inadequate modes of providing information (i.e. offering false encouragement, discouraging questions)
4. Other topics unrelated to nursing care (doctor unavailable, bed too high, disliked food, long admitting procedure, long visiting hours)
5. Personal opinions concerning bottle feeding, vasectomies, and circumcisions which were contrary to those held by the subjects were offered without supporting evidence for the nurse's viewpoint

The data concerning least helpful aspects of nursing care indicated that the cesarean subjects (N=18) cited the nurse's attitude and other aspects unrelated to direct nursing care as least helpful more frequently than the vaginal group (N=20, Table 18). Thus the cesarean group appeared to be slightly more sensitive to the attitudes of nurses, both positive and negative. They also cited environmental insufficiencies (the height of the bed, the food, the temperature) as not helpful, whereas the vaginal group did not. Since the cesarean group had significantly longer postpartum hospitalizations than the vaginal group, they were exposed to the hospital environment for a longer period of time, and thus may have been more sensitive to its deficiencies. The least helpful aspect of nursing care reported by 45% of the vaginal group was the negative attitudes of nurses.

TABLE 18

PROPORTION OF SUBJECTS REPORTING ASPECTS OF NURSING CARE WHICH WERE NOT HELPFUL BY TYPE OF DELIVERY

| | TYPE OF DELIVERY | |
|---|---|---|
| | CESAREAN $N=18^1$ | VAGINAL $N=20^2$ |
| ASPECTS | N (%) | N (%) |
| NEGATIVE NURSE ATTITUDES | 10 (56) | 9 (45) |
| PHYSICAL CARE OF SUBJECT | 5 (28) | 7 (35) |
| INADEQUATE INFORMATION | 4 (22) | 6 (30) |
| OTHER | 4 (22) | 2 (10) |
| NURSE'S PERSONAL OPINIONS | 1 (6) | 1 (5) |

[1] 19 cesarean subjects did not respond to this question.

[2] 16 vaginal subjects did not respond to this question.

## Suggestions For Improving Nursing Care

Suggestions for improving nursing care were offered by 34 subjects. These suggestions were categorized as:

1. Physical care of the subject (i.e. offer back rubs, offer to care for the infant during the first morning postpartum or when the mother seemed tired, provide opportunity for rest, offer medication, offer

blankets, change beds to a lower height, check contractions personally, assist with breathing exercises)

2. Information needs (i.e. cesarean and postnatal care, infant care, infant's usual moods and activity, hospital routine, staff expectations of new mothers, breastfeeding, usual postpartum emotional response, personal care on discharge)
3. Modes of providing information (i.e. explain prior to tasks, standardize information among nurses, give more explicit explanations, decrease information given on the first day postpartum, encourage questions)
4. Nurses' attitudes (i.e. more patient, more sympathetic)
5. Mothers' needs concerning infant care (i.e. support during the first and subsequent feedings, care for infant in subject's presence, demonstrate tub bath, provide more opportunity to practice infant bathing)
6. Staffing (i.e. same nurse for mother and infant postpartum, continuity in nursing from day to day, more nurses, more staff available for emergencies)

Suggestions for improving nursing care were related to the subjects' physical care most frequently for both groups (Table 19). These suggestions concerned anticipating patient's physical needs as well as individualizing care. Information needs were suggested more often by the cesarean group (N=16) compared with the vaginal group (N=18). These needs concerned better preparation for discharge, that is, what to expect at home of one's self and the infant. Perhaps discharge planning for combined surgical and puerperal recovery required more detailed instruction.

TABLE 19

PROPORTION OF SUBJECTS REPORTING SUGGESTIONS FOR IMPROVING NURSING CARE BY TYPE OF DELIVERY

| | TYPE OF DELIVERY | |
|---|---|---|
| | CESAREAN<br>N=16[1] | VAGINAL<br>N=18[2] |
| SUGGESTIONS CONCERNING: | N (%) | N (%) |
| PHYSICAL CARE OF SUBJECT | 5 (31) | 6 (33) |
| INFORMATION NEEDS | 5 (31) | 3 (17) |
| INFORMATION PROVISION | 4 (25) | 4 (22) |
| NURSE'S ATTITUDE | 2 (13) | 3 (17) |
| INFANT CARE | 1 (6) | 4 (22) |
| STAFFING | 3 (19) | 1 (6) |

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[1] 21 cesarean subjects did not respond to this question.

[2] 18 vaginal subjects did not respond to this question.

The vaginally delivered subjects suggested the need for assistance with infant care more frequently than the cesarean delivered subjects. This finding seemed to be related to suggestions that nurses take the responsibility for infant care the first day postpartum. Perhaps cesarean delivered subjects were given more assistance in caring for their infants the first day postpartum. It appeared that some vaginally delivered subjects required nurturing during the initial postpartum period.

Suggestions concerning staffing were reported more often by the cesarean group compared with the vaginal group. Continuity of nursing care in the postpartum period and the availability of nurses appeared to concern the cesarean group. Since the majority of cesarean sections were performed under emergency circumstances, the cesarean group appeared to feel that the number of nursing staff affected their safety. In addition, the cesarean group seemed to prefer having one nurse to relate to, perhaps in order to deal with losses they had encountered.

## Summary

It appeared that the subjects placed a high value on the psychosocial skills of nurses. Further, it seemed that the attitude of an individual was not thought to be amenable to change as it was not suggested that the attitude of nurses could be improved. Rather suggestions for nursing care centered more on the anticipation of patients' needs for physical care and for information. The overall thrust of the subjects' responses concerning nursing care implied that they most valued nurses who provided individualized care.

## Impact of Selected Demographic and Obstetric Factors

The subjects were recategorized according to each of the six demographic variables and fifteen obstetric variables noted in the Cesarean and Vaginal Respondents section of this chapter, to ascertain each variable's effect on subjects' reported feelings and reasons for feelings reflecting loss concerning their childbirth experiences. Since the likelihood of differences existing between the emotional reactions to cesarean and vaginal childbirth was indicated in the literature, differences of at least 10% between these two groups of subjects were noted. In addition, there was some indication in the literature that emergency cesarean delivery engenders loss to a greater degree than elective cesarean delivery, thus differences of at least 10% in losses and feelings between cesarean and vaginally delivered subjects who labored are highlighted. Caution must be exercised in the interpretations based on differences of 10% (4 subjects). The recategorization of subjects using the remaining demographic and obstetric variables resulted in some groups of very small size, also there was less support in the literature for the influence of these variables on the emotional reactions of women to childbirth. Discussion will be limited to variables where a difference of at least 30% between groups was observed. Statistical tests were not employed in these analyses due to small sample size and the large number of emotional reactions studied.

Of the variables analyzed, preference for cesarean delivery was found to be the factor which had the greatest impact on subjects' losses and feelings. Eight other factors accounted for the remaining differences in these emotional reactions to childbirth. These factors included, in descending order of importance: age, time of questionnaire response, infant size, type of cesarean delivery (with or without labor), experience with surgery, support person's presence during labor, marital status, time to prepare for cesarean delivery, and length of labor. The impact of each factor is presented, tentative explanations put forth for the differences in emotional reactions to childbirth according to each factor, and other relevant research findings are cited.

## Type of Delivery

The impact that cesarean and vaginal delivery had on the subjects' reported feelings and reasons for feelings reflecting loss was discussed earlier in this chapter. A summary of these differences is presented in Table 20 to facilitate comparison of this data with data on emotional reactions of women to childbirth. Discussion will be limited to variables where a 30% or greater difference between groups was observed. Statistical tests were not employed in these analyses because of the small sample sizes and the large number of emotional reactions studied.

Of the variables analyzed, preference for cesarean delivery was found to be the factor which had the greatest impact on subjects' losses and feelings. Eight other factors accounted for the remaining differences in these emotional reactions to childbirth. These factors included, in descending order of importance: age, time of questionnaire response, infant size, type of cesarean delivery (with or without labor), experience with surgery, support person's presence during labor, marital status, time to prepare for cesarean delivery, and length of labor. The impact of each factor is presented, tentative explanations put forth for the differences in emotional reactions to childbirth according to each factor, and other relevant research findings are cited.

Type of Delivery

The impact that cesarean and vaginal delivery had on the subjects' reported feelings and reasons for feelings reflecting loss was discussed earlier in this chapter. A summary of these differences is presented in Table 20 to facilitate comparison of this data with data on

## TABLE 20
## PROPORTION OF SUBJECTS REPORTING EMOTIONAL REACTIONS BY TYPE OF DELIVERY

| | TYPE OF DELIVERY | | | |
|---|---|---|---|---|
| | CESAREAN N=37 | | VAGINAL N=36 | |
| REACTION | N | (%) | N | (%) |
| **LOSSES:** | | | | |
| Optimal Prenatal Experience | 7 | (19) | 3 | (8) |
| Optimal Labor Experience | 23 | (62) | 27 | (75) |
| Optimal Delivery Experience | 26 | (70) | 10 | (28) |
| Control (labor) | 11 | (39) | 10 | (28) |
| Fear for Personal Safety | 5 | (14) | 0 | (0) |
| **FEELINGS (time interval):** | | | | |
| Supported (labor) | 8 | (29)[1] | 19 | (53) |
| Happy (labor) | 2 | (7)[1] | 9 | (25) |
| Confident (labor) | 2 | (7)[1] | 6 | (17) |
| Relieved (labor) | 1 | (4)[1] | 5 | (14) |
| Pain (labor) | 8 | (29)[1] | 14 | (39) |
| Supported (1/2 hour predelivery) | 2 | (6)[2] | 7 | (19) |
| Anxious (1/2 hour predelivery) | 17 | (49)[2] | 13 | (36) |
| Pain (1/2 hour predelivery) | 5 | (19)[1] | 15 | (42) |
| Happy(24 hours postdelivery) | 17 | (49)[2] | 22 | (61) |
| Depressed (24 hours postdelivery) | 4 | (11)[2] | 0 | (0) |
| Distorted Perceptions (24 hrs. post) | 11 | (31)[2] | 1 | (3) |
| Supported (hospital stay) | 20 | (54) | 11 | (31) |
| Happy (hospital stay) | 8 | (22) | 15 | (42) |
| Disappointed (hospital stay) | 10 | (27) | 4 | (11) |
| Anxious (hospital stay) | 4 | (11) | 9 | (25) |
| Depressed (hospital stay) | 8 | (22) | 2 | (6) |
| Fatigued (hospital stay) | 2 | (5) | 8 | (22) |
| Happy (home) | 27 | (73) | 20 | (56) |
| Confident (home) | 2 | (5) | 8 | (22) |
| Anxious (home) | 11 | (30) | 15 | (42) |
| Disappointed (home) | 9 | (24) | 5 | (14) |

[1] N=28, 9 cesarean subjects did not have labor.

[2] N=35, 2 cesarean subjects did not respond to this question.

other selected factors which will be presented in subsequent tables. The influence that type of delivery had on subjects' emotional reactions to childbirth will be compared to the impact of other selected factors in the summary at the end of this chapter. It is noted that at differences of 10% between groups type of delivery appeared to have an impact on emotional reactions to childbirth; however, at differences of 30% only one loss, that related to optimal delivery experience, differentiated these two groups.

## Type of Delivery After Labor Began

Since Cranley, Hedahl and Pegg (1983) found that the emotional reactions of subjects who had begun labor and delivered by emergency cesarean section differed from vaginally delivered subjects, the cesarean subjects of this study who had labored were compared to their vaginal counterparts. When the differences between cesarean subjects who had labored (N=23) and the vaginally delivered subjects (N=36) were compared it was found that the results differed from the initial findings using the total of both groups. The most striking difference concerned loss related to optimal delivery experience, which the cesarean delivered subjects who labored indicated more frequently than both the total cesarean group and the vaginal group.

Losses related to self-esteem concerning mothering, and power over the home environment were cited more often by the vaginal group than by the cesarean group (Table 21). Feelings reported during the hospital stay and after arriving home showed the most differences between the cesarean and vaginal groups. Calmness and anger were less frequently reported by the cesarean group but pain was more often reported during the postpartum hospitalization. After arriving home the cesarean group reported disappointment and anger more often and depression less often than the vaginal group.

TABLE 21

PROPORTION OF SUBJECTS WHO EXPERIENCED LABOR REPORTING EMOTIONAL REACTIONS BY TYPE OF DELIVERY

| | TYPE OF DELIVERY | |
|---|---|---|
| | CESAREAN | VAGINAL |
| REACTION | N=23<br>N (%) | N=36<br>N (%) |
| LOSSES: | | |
| Optimal Delivery Experience | 19 (83) | 10 (28) |
| Self-esteem (mothering) | 9 (39) | 18 (50) |
| Power (home) | 6 (26) | 14 (39) |
| FEELINGS (time interval): | | |
| Relief (labor) | 1 ( 4) | 5 (14) |
| Calm (hospital stay) | 1 ( 4) | 6 (17) |
| Angry (hospital stay) | 6 (26) | 13 (36) |
| Pain (hospital stay) | 6 (26) | 5 (14) |
| Disappointed (home) | 8 (35) | 5 (14) |
| Depressed (home) | 1 ( 4) | 6 (17) |
| Angry (home) | 3 (13) | 1 ( 3) |

As expected, loss related to optimal delivery experience was cited by the cesarean group more often than by the vaginal group, indicating that the anticipated delivery of the majority of laboring cesarean subjects was not achieved. Only one of the feelings cited prior to delivery (relief during labor) differentiated the two groups, and this was reported proportionately more frequently by the vaginal group, although it occurred in only 14% of this group. Perhaps these few vaginally delivered subjects remembered feeling relieved at the prospect of labor because they were more satisfied with their delivery experiences. Cesarean subjects may have reported pain more often and calmness and anger less often during the postpartum hospitalization period excluding the first 24 hours after delivery, because they were preoccupied with the experience of pain.

The majority of differences between these two groups occurred after arriving home. Losses related to self-esteem concerning mothering capabilities and control over the home environment, as well as feelings of depression were reported most often by vaginal subjects. The incidence of these reactions may be due to the fact that the average length of the postpartum hospitalization was shorter for the vaginal group (approximately 4 days) than for the cesarean group (approximately 6 days). Thus when the vaginal subjects arrived home they may have felt less confident in their capabilities as mothers and in their abilities to control the environment, resulting in feelings of depression. The cesarean subject, on the other hand, cited disappointment and anger more frequently than the vaginal subjects. Since disappointment and anger are two feelings commonly associated with grieving, the cesarean delivered subjects may have been reacting to loss of their optimal delivery experiences, which was reported with high frequency.

In summary, when the emotional reactions to childbirth of only those cesarean subjects who labored were considered, their experiences appeared to be more similar to the vaginal group than when the total cesarean group's experiences were considered. The largest difference concerned loss of optimal delivery experience, which was reported proportionately more frequently by the cesarean labor group. Perhaps due to this loss, feelings reflecting loss were reported more often after arriving home by this group.

The findings of two research studies (Marut & Mercer, 1979; Cranley, Hedahl & Pegg, 1983) differed from the findings of this study. In Marut and Mercer's study of 30 vaginal and 20 emergency cesarean primiparas' attitudes to childbirth, they found that cesarean subjects experienced losses related to fear for personal and infant safety, control, self-esteem, and expected bonding experience in addition to optimal delivery experience, more frequently than vaginally delivered subjects. Cranley, Hedahl and Pegg (1983) also studied women's emotional reactions to emergency cesarean delivery. They found that these women reported less positive perceptions of childbirth and also rated their childbirth experiences as negative overall, more frequently than vaginally delivered subjects. The differences in findings between these two studies and the present study may in part be related to the time of data collection, less than four days postpartum compared with two weeks postpartum.

Preference for Cesarean Delivery

Three categories of response were identified in relation to the question relating to preference for a cesarean delivery: no (N=23), yes (N=5), and no choice (N=9). Since the latter group did not select yes or no in response to item 2, Part I, of the Maternal Questionnaire, perhaps this group did not have a clear understanding of the intent of this question. All vaginal subjects responded that they did not prefer cesarean delivery, thus they were excluded from this analysis. Since this was a retrospective study, responses to preference for cesarean delivery were likely influenced by the subjects' childbirth experiences.

Preferring Cesarean Section. Subjects who preferred cesarean delivery appeared to be convinced of the necessity for this mode of delivery as indicated by their reports of happiness and excitement on learning cesarean delivery was to be performed and their minimal concern for infant safety (Table 22). In addition, this group indicated loss related to optimal delivery experience least of the three groups. Further feelings of pain and losing control were cited by this group just prior to delivery, which may have strengthened the belief that cesarean section was necessary. Preferring cesarean section appeared to be associated with dissatisfaction after arriving home as evidenced by reports of loss related to power at home and feelings of anger.

Not Preferring Cesarean Section. Not preferring cesarean delivery appeared to be associated with less positive perceptions of labor and of cesarean delivery. Further, the subjects not preferring this mode of delivery did not seem to be convinced that cesarean delivery was necessary for the safety of their infants. Undergoing cesarean delivery when it was not preferred appeared to be related to the desire to leave hospital and also happiness on arriving home. These subjects appeared to question their effectiveness as mothers as indicated by their reports of both loss related to mothering abilities and

## TABLE 22

## PROPORTION OF SUBJECTS REPORTING EMOTIONAL REACTIONS BY PREFERENCE FOR CESAREAN DELIVERY

| | PREFER CESAREAN DELIVERY | | | | | |
|---|---|---|---|---|---|---|
| | YES N=5 | | NO N=23 | | NO CHOICE N=9 | |
| REACTION | N | (%) | N | (%) | N | (%) |
| LOSSES: | | | | | | |
| Optimal Labor Experience | 2 | (40) | 17 | (74) | 4 | (44) |
| Fear for Infant Safety | 1 | (20) | 13 | (57) | 6 | (67) |
| Optimal Delivery Experience | 2 | (40) | 18 | (78) | 6 | (67) |
| Optimal Postpartum Experience | 0 | ( 0) | 2 | ( 9) | 3 | (33) |
| Power (hospital) | 0 | ( 0) | 6 | (26) | 3 | (33) |
| Self-esteem (nursing care) | 3 | (60) | 6 | (26) | 6 | (67) |
| Power (home) | 3 | (60) | 7 | (30) | 3 | (33) |
| Self-esteem (mothering) | 0 | ( 0) | 11 | (48) | 3 | (33) |
| FEELINGS: | | | | | | |
| Losing control (labor) | - | (-)[1] | 1 | ( 5)[2] | 4 | (67)[3] |
| Pain (labor) | - | (-)[1] | 6 | (32)[2] | 0 | ( 0)[3] |
| Happy (on learning of C.S.) | 2 | (40) | 0 | ( 0) | 2 | (22) |
| Excited (on learning of C.S.) | 2 | (40) | 0 | ( 0) | 0 | ( 0) |
| Anxious (on learning of C.S.) | 0 | ( 0) | 10 | (43) | 3 | (33) |
| Excited (1/2 hr. predelivery) | 0 | ( 0) | 7 | (30) | 2 | (29)[4] |
| Losing control (1/2 hr. ") | 2 | (40) | 4 | (17) | 0 | ( 0) |
| Pain (1/2 hr. predelivery) | 2 | (40) | 3 | (13) | 0 | ( 0) |
| Happy (24 hrs. post delivery) | - | (-)[1] | 13 | (57) | 2 | (22) |
| Depressed (hospital) | 0 | ( 0) | 6 | (26) | 3 | (33) |
| Restless (hospital) | 1 | (20) | 12 | (52) | 1 | (11) |
| Happy (home) | 2 | (40) | 16 | (70) | 8 | (89) |
| Anxious (home) | 1 | (20) | 10 | (43) | 0 | ( 0) |
| Angry (home) | 2 | (40) | 2 | ( 9) | 1 | (11) |

Number of subjects responding to the question

[1] N=3, therefore results not analyzed

[2] N=19

[3] N=6

[4] N=7

feelings of anxiety at home. This may have been due to the fact that cesarean delivery was performed apparently against their preferences and thus resulted in feelings of being ineffectual.

No Choice Concerning Cesarean Section. Subjects who felt they had no choice concerning cesarean delivery seemed to generalize their apparent lack of input into the delivery decision to feeling ineffectual during the postpartum experience. This was indicated by their reports of losses related to optimal delivery and postpartum experiences, power over the hospital environment and self-esteem concerning nursing care.

## Age

As age is commonly thought to influence emotions it was used as a variable in examining women's emotional responses to childbirth. Subjects were categorized according to age into three groups by determining those who were younger than 21 years, that is one standard deviation below the mean age of all subjects (N=12); older than 27 years, one standard deviation above the mean (N=16); and ages 21 to 27 years (N=44).

The subjects over 27 years old reported losses related to control during labor and optimal delivery experience most often of the three age groups (Table 23). It may be that these subjects had more firmly fixed notions as to what they expected of themselves during labor and of their deliveries. Further, these notions may develop as one ages. Feelings reflecting physiological states, such as pain and fatigue, were most commonly reported by this older age group. Thus, even though this group reported more sources of feelings reflecting loss, they did not report feelings reflecting loss more frequently, but rather appeared to be more aware of their physical states. The younger group seemed to be more accepting of cesarean rather than of vaginal delivery. Of the three groups, subjects between 21 and 27 years old appeared to view the cesarean delivery most favorably, as two-thirds of this group were relieved at the prospect.

TABLE 23

PROPORTION OF SUBJECTS REPORTING EMOTIONAL REACTIONS BY AGE (IN YEARS)

| | AGE (years) | | | | | |
|---|---|---|---|---|---|---|
| | 18-20<br>N=12 | | 21-27<br>N=45 | | >27<br>N=16 | |
| REACTION | N | (%) | N | (%) | N | (%) |
| **LOSSES:** | | | | | | |
| Control (labor) | 1 | ( 8) | 14 | (31) | 6 | (38) |
| Optimal Delivery Experience | 4 | (33) | 22 | (49) | 10 | (63) |
| **FEELINGS:** | | | | | | |
| Relieved (on learning of C.S) | 1 | (17)[1] | 14 | (67)[2] | 2 | (20)[3] |
| Excited ( " " " " ) | 2 | (33)[1] | 0 | ( 0)[2] | 0 | ( 0)[3] |
| Losing control ( " " " ) | 0 | ( 0)[1] | 2 | (10)[2] | 3 | (30)[3] |
| Supported (delivery) | 0 | ( 0)[1] | 5 | (21)[4] | 2 | (33)[1] |
| Anxious ( " ) | 3 | (50)[1] | 8 | (33)[4] | 1 | (17)[1] |
| Fatigued ( " ) | 2 | (33)[1] | 3 | (13)[4] | 3 | (50)[1] |
| Pain (24 hrs. post delivery) | 0 | ( 0) | 9 | (20) | 6 | (38) |
| Angry (hospital) | 1 | ( 8) | 17 | (38) | 7 | (44) |

Number of subjects responding to the question

[1] N=6

[2] N=21

[3] N=10

[4] N=24

## Time of Questionnaire Response

It was assumed that some variation in the reporting of emotional reactions was due to the time of questionnaire response. Five subjects did not date their questionnaires thus they were excluded from this analysis. Three groups were identified in relation to the number of days postpartum the questionnaire was answered: less than 11 days, one standard deviation below the mean of all subjects (N=7); from 11 to 19 days (N=50); and greater than 19 days, one standard deviation above the mean (N=11).

Feelings reflecting gain, excitement, support and happiness were recalled more often prior to delivery by the subjects responding after 19 days postpartum, whereas these feelings increased from labor to arriving home for the other two groups (Table 24). It appeared that after being at home for a time the novelty of motherhood wore off and emotional reactions to childbirth reflected the subjects perceptions of their ability to cope with motherhood.

TABLE 24

PROPORTION OF SUBJECTS REPORTING EMOTIONAL REACTIONS BY TIME OF QUESTIONNAIRE RESPONSE (days postpartum)

| | DAYS POSTPARTUM | | | | | |
|---|---|---|---|---|---|---|
| | <11 | | 11-19 | | >19 | |
| | N=7 | | N=50 | | N=11 | |
| REACTION | N | (%) | N | (%) | N | (%) |
| LOSSES: | | | | | | |
| Power (hospital) | 0 | ( 0) | 17 | (34) | 2 | (18) |
| FEELINGS: | | | | | | |
| Excited (labor) | 2 | (33) | 16 | (35) | 6 | (67) |
| Anxious (labor) | 2 | (33) | 29 | (63) | 3 | (33) |
| Fatigued (1/2 hr. predelivery) | 0 | ( 0) | 16 | (33) | 3 | (27) |
| Pain (24 hrs. postdelivery) | 1 | (14) | 9 | (19) | 5 | (45) |
| Fatigued ( " ) | 0 | ( 0) | 18 | (38) | 2 | (18) |
| Supported (hospital) | 4 | (57) | 24 | (48) | 3 | (27) |
| Happy (home) | 6 | (86) | 31 | (62) | 5 | (45) |

Number of subjects responding to the question.

[1] N=6

[2] N=46

[3] N=9

[4] N=48

## Infant Size

As the cesarean group bore significantly larger infants than the vaginal group, the investigator examined the effects of infant size on emotional reactions to childbirth. Infants were categorized according to size by determining those who were one standard deviation above the mean of the entire sample (N=10), one standard deviation below the mean (N=11), and between these standard deviations (N=52).

Mothers bearing larger infants indicated losses related to optimal delivery and bonding experiences, as well as power over their home environments more frequently than mothers bearing smaller infants (Table 25). Further, mothers bearing larger infants reported anxiety and disappointment prior to delivery, and disappointment at home, more often than mothers bearing smaller infants. Perhaps bearing a larger infant was perceived as more difficult and this affected later adjustment to the home environment.

TABLE 25
PROPORTION OF SUBJECTS REPORTING EMOTIONAL REACTIONS BY INFANTS' BIRTH WEIGHT

| | BIRTH WEIGHT (in grams) | | | | | |
|---|---|---|---|---|---|---|
| | <3070 | | 3070-3950 | | >3950 | |
| | N=11 | | N=52 | | N=10 | |
| REACTION | N | (%) | N | (%) | N | (%) |
| **LOSSES:** | | | | | | |
| Optimal Delivery Experience | 4 | (36) | 25 | (48) | 7 | (70) |
| Optimal Bonding Experience | 0 | (0) | 8 | (15) | 3 | (30) |
| Power (home) | 2 | (18) | 20 | (38) | 5 | (50) |
| **FEELINGS** | | | | | | |
| Relieved (labor) | 3 | (30)[1] | 3 | (6)[2] | 0 | (0)[3] |
| Pain (labor) | 6 | (60)[1] | 13 | (28)[2] | 3 | (43)[3] |
| Anxious (1/2 hr. predelivery) | 2 | (18) | 21 | (42)[4] | 7 | (70) |
| Disappointed (1/2 hr. " ) | 0 | (0) | 2 | (4)[4] | 3 | (30) |
| Disappointed (home) | 0 | (0) | 9 | (17) | 4 | (40) |

Number of subjects responding to the question

[1] N=10

[2] N=47

[3] N=7

[4] N=50

Type of Cesarean Delivery

Cranley, Hedahl and Pegg (1983) compared the emotional reactions of emergency cesarean subjects to those who had elective cesarean deliveries. Their findings indicated that women reported less positive perceptions of their birth experiences and rated childbirth more negatively after emergency cesarean deliveries. In this study subjects who delivered by cesarean without experiencing labor (N=14) were compared with those who had labored and delivered by cesarean (N=23).

The cesarean delivered subjects who experienced labor reported loss related to optimal labor experience, pain during labor, and fatigue just prior to delivery more often than subjects who did not labor (Table 26). The greater degree of pain and fatigue might have contributed to this loss of optimal labor experience. However, cesarean delivered subjects who did not labor reported that their deliveries were less than optimal, feared surgery, and were anxious both when they learned their deliveries would be cesarean and just prior to the delivery. It appears that subjects who did not experience labor were not convinced of the necessity for cesarean delivery and thus were more anxious about its prospect. Affonso and Stichler (1978) predicted that grief feelings would be more common after emergency cesarean delivery, compared to grief feelings after an elective cesarean section. The findings of this study do not support this prediction.

TABLE 26

PROPORTION OF SUBJECTS REPORTING EMOTIONAL REACTIONS BY TYPE OF CESAREAN DELIVERY

| | TYPE OF CESAREAN DELIVERY | | | |
|---|---|---|---|---|
| | WITH LABOR N=23 | | WITHOUT LABOR N=14 | |
| REACTION | N | (%) | N | (%) |
| LOSSES: | | | | |
| Optimal Labor Experience | 17 | (74) | 6 | (43) |
| Optimal Delivery Experience | 19 | (83) | 7 | (50) |
| Fear of Surgery | 4 | (17) | 9 | (64) |
| FEELINGS: | | | | |
| Pain (labor) | 8 | (35) | N/A | |
| Anxious (on learning of C/S) | 5 | (22) | 8 | (57) |
| Anxious (1/2 hr. predelivery) | 7 | (32)[1] | 10 | (77)[2] |
| Fatigue (1/2 hr. predelivery) | 7 | (32)[1] | 0 | (0) |

Number of subjects responding to the question.

[1] N=22

[2] N=13

## Previous Surgery

Mevs (1977) suggested that past experience with surgery and hospitalization might be internal resources an individual could draw upon to cope with a cesarean delivery, thus the factor previous surgery was explored. Thirty-three subjects had surgery as adults (after age 18), 10 subjects had surgery as children (before age 10- tonsillectomies), and 30 subjects had never had surgery.

Subjects who had surgery in adulthood reported feelings of anxiety during labor and happiness during delivery most frequently (Table 27). Feelings of anxiety and fatigue were more prevalent during delivery for subjects who had never had surgery than for subjects who had surgery in childhood. Whereas the subjects who had surgery in childhood reported more restlessness in hospital and loss related to power in their home environments than subjects who had never had surgery, as well as the most fatigue at home of the three groups. These findings do not appear to support the suggestion that past surgical experience is a resource individuals can draw upon to cope with the experiences of childbirth.

TABLE 27

PROPORTION OF SUBJECTS REPORTING EMOTIONAL REACTIONS BY HISTORY OF PREVIOUS SURGERY

| | PREVIOUS SURGERY | | | | | |
|---|---|---|---|---|---|---|
| | AS ADULT | | AS CHILD | | NONE | |
| | N=33 | | N=10 | | N=30 | |
| REACTION | N | (%) | N | (%) | N | (%) |
| LOSS: | | | | | | |
| Power (home) | 15 | (46) | 6 | (60) | 6 | (20) |
| FEELINGS: | | | | | | |
| Anxious (labor) | 20 | (69)[1] | 3 | (30) | 9 | (35)[2] |
| Happy (delivery) | 9 | (60)[3] | 0 | ( 0)[4] | 4 | (27)[3] |
| Anxious (delivery) | 4 | (27)[3] | 0 | ( 0)[4] | 7 | (47)[3] |
| Fatigued (delivery) | 2 | (13)[3] | 0 | ( 0)[4] | 5 | (33)[3] |
| Restless (hospital) | 14 | (42 ) | 6 | (60) | 9 | (30) |
| Fatigued (home) | 7 | (21 ) | 6 | (60) | 5 | (17) |

Number of subjects responding to the question

[1] N=29

[2] N=26

[3] N=15

[4] N=6

## Labor Support

The presence of a support person during labor was considered as a variable that might influence emotional responses to childbirth. Subjects who had a support person during labor were predicted to have fewer losses and feelings reflecting loss. Of the 64 subjects who experienced labor, 54 had a support person present during labor and 10 did not have this support.

Anxiety and fear of surgery were more prevalent for subjects who did not have a support person present during labor compared with those who had this support (Table 28). Therefore,it appeared that some select reactions were influenced by the absence of a support person during labor. It is interesting to note that loss related to optimal labor experience was more prevalent for subjects who had a support person present during labor, which may indicate that these subjects had higher expectations of themselves during labor.

TABLE 28

PROPORTION OF SUBJECTS REPORTING EMOTIONAL REACTIONS BY PRESENCE OF A SUPPORT PERSON DURING LABOR

| | SUPPORT PERSON | | | |
|---|---|---|---|---|
| | ABSENT N=10 | | PRESENT N=63 | |
| REACTION | N | (%) | N | (%) |
| **LOSSES:** | | | | |
| Optimal Prenatal Experience | 4 | (40) | 6 | (10) |
| Optimal Labor Experience | 3 | (30) | 47 | (75) |
| Fear of Surgery | 5 | (50) | 8 | (13) |
| **FEELINGS:** | | | | |
| Anxious (on learning of C.S.) | 6 | (67)[1] | 7 | (25)[2] |
| Anxious (1/2 hr. predelivery) | 7 | (70) | 22 | (37)[3] |
| Fatigued (24 hrs. postdel.) | 0 | (0) | 21 | (34)[4] |

Number of subjects responding to the question

[1] N=9

[2] N=28

[3] N=60

[4] N=62

## Marital Status

This factor was chosen because the investigator wished to compare emotional reactions to childbirth according to the factors marital status and support person's presence during labor. Sixty-one subjects were married and 12 subjects were single.

Anxiety both on learning cesarean delivery was to be performed and during delivery, as well as loss related to optimal postpartum experience were reported more often by the single subjects (Table 29). Married subjects indicated feeling supported during labor more frequently than single subjects. It appears that at two turning points in the childbirth experience, the decision to perform a cesarean section and delivery, single subjects were more anxious than married subjects. This may be related to the lack of a husband's support, similar to the findings concerning lack of a support person during labor in the previous section. The married subjects indicated loss related to power and control during labor more frequently than single subjects. This appeared to be a somewhat conflicting finding; however, married subjects may have had higher expectations of their ability to control labor with the help of their spouses, again similar to the findings concerning support person's presence during labor.

TABLE 29

PROPORTION OF SUBJECTS REPORTING EMOTIONAL REACTIONS BY MARITAL STATUS

|  | MARITAL STATUS |  |  |  |
|---|---|---|---|---|
|  | MARRIED N=61 |  | SINGLE N=12 |  |
| REACTION | N | (%) | N | (%) |
| LOSSES: |  |  |  |  |
| Control (labor) | 21 | (34) | 0 | (0) |
| Optimal Postpartum Experience | 6 | (10) | 5 | (42) |
| FEELINGS: |  |  |  |  |
| Supported (labor) | 27 | (51)[1] | 1 | (9)[2] |
| Anxious (on learning of C.S.) | 9 | (29)[3] | 4 | (67)[4] |
| Anxious (delivery) | 8 | (27)[5] | 4 | (67)[4] |

Number of subjects responding to the question

[1] N=53

[2] N=11

[3] N=31

[4] N=6

[5] N=30

## When the Possibility of Cesarean Delivery Was Known

Affonso and Stichler (1978) noted that grief feelings occur after emergency cesarean deliveries because women have inadequate time to prepare for the event. Eleven cesarean subjects knew that a cesarean delivery was a possibility more than one day before they delivered, while 25 subjects knew one day or less before their actual deliveries.

Subjects with more than one day to prepare for cesarean delivery reported anxiety more frequently than the other group (Table 30). From these findings it does not appear that forewarning of the potential for a cesarean section increased subjects' abilities to deal with the impact of cesarean delivery. There were no differences between the groups concerning feelings after delivery, thus the knowledge that a cesarean delivery was possible did not appear to have any lasting effects on these subjects.

TABLE 30

PROPORTION OF SUBJECT REPORTING EMOTIONAL REACTIONS BY WHEN THE POSSIBILITY OF A CESAREAN DELIVERY WAS KNOWN

| | WHEN AWARE OF CESAREAN | | | |
|---|---|---|---|---|
| | $>$ 1 DAY | | $\leq$ 1 DAY | |
| | N=11 | | N=26 | |
| REACTION | N | (%) | N | (%) |
| LOSS: | | | | |
| Fear of Surgery | 7 | (64) | 6 | (23) |
| FEELINGS: | | | | |
| Anxious (labor) | 7 | (88)[1] | 10 | (50)[2] |
| Anxious (on learning of C.S.) | 8 | (73) | 5 | (19) |
| Anxious (1/2 hr. predelivery) | 8 | (73) | 10 | (38) |

Number of subjects responding to the question

[1] N=8

[2] N=20

## Length of Labor

The influence of labor length was explored because longer labors contributed to a less positive perception of childbirth in Marut and Mercer's study (1979). Of the 59 subjects who had their labors recorded, 12 subjects labored longer than one standard deviation above the mean of all subjects (>14.71 hours). Only 4 subjects labored less than one standard deviation below the mean, thus these subjects were combined with the mean group of subjects, resulting in a total of 47 subjects laboring less than one standard deviation above the mean.

Fear for infant safety was reported less often by the subjects who had longer labors (Table 31). Perhaps during a long labor the focus was on the contractions and coping with them rather than on the infant. On learning a cesarean delivery was imminent, subjects having longer labors reported feeling that they were losing control. One would expect that after a long labor a woman's energy would be depleted and when dealing with a cesarean delivery the ability to maintain control might suffer. During delivery, subjects with longer labors were more likely to report feeling confident. These subjects indicated that after many hours of trying to maintain control during contractions, they were finally able to work with their contractions. Based on these findings, it does not appear that subjects having longer labors had less positive perceptions of childbirth.

TABLE 31

PROPORTION OF SUBJECTS REPORTING EMOTIONAL REACTIONS BY LENGTH OF LABOR

| | LENGTH OF LABOR | |
|---|---|---|
| | >14.71hrs. | ≤14.71hrs. |
| | N=12 | N=47 |
| REACTION | N (%) | N (%) |
| LOSS: | | |
| Fear for Infant Safety | 3 (25) | 29 (62 ) |
| FEELINGS: | | |
| Losing control (cesarean) | 3 (50)[1] | 2 (12)[2] |
| Confident (delivery) | 2 (33)[3] | 1 ( 3)[4] |

Number of subjects responding to the question

[1] N=6

[2] N=17

[3] N=6

[4] N=30

Other Factors

The subjects were also categorized according to other factors including race, major life change in the past year, labor induction or augmentation, physiological complications of pregnancy, delivery, or the postpartum period, indications for cesarean delivery, infant sex, infant feeding mode, postpartum unit, or length of postpartum stay. No differences of 30% or greater were found concerning the subjects' feelings and sources of feelings reflecting loss.

Summary.

The demographic factors: age, marital status, and previous surgery; and the obstetric factors: type of delivery (cesarean or vaginal), type of delivery after labor (cesarean or vaginal), preference for cesarean delivery, time of questionnaire response, infant size, type of cesarean delivery (with or without labor), support person's presence during labor, time to prepare for cesarean delivery, and length of labor may have had some influence on the subjects' feelings and sources of feelings reflecting loss experienced in relation to childbirth. However, due to the small sample sizes resulting from recategorization of subjects according to these factors, statistical tests could not be employed to analyze the significance of these factors on emotional response to childbirth. The impact of selected factors was small compared with the large number of feelings identified during the seven time intervals and the number of losses. No single factor was isolated that could be said to have had a major impact on the subjects' emotional reactions to childbirth.

Contrary to the predictions in the literature concerning cesarean childbirth, the findings of this study reveal that the emotional reactions of cesarean and vaginal subjects to childbirth are remarkably similar. Other factors appeared to influence the subjects emotional reactions to a greater extent, notably whether the subject reported that she preferred, did not prefer, or she felt she had no choice concerning her cesarean delivery. Based on the results of this study it seems that the similarities between subjects' emotional reactions to childbirth, regardless of the factors used to categorize them, far outweigh the differences.

# CHAPTER SIX

# LIMITATIONS, CONCLUSIONS AND IMPLICATIONS

The limitations of this study are outlined and conclusions are put forth based on the findings of this exploratory study. Implications for nursing practice and further investigations are then indicated.

## Limitations

1. The small sample size and convenience sampling method does not allow for inferences to be made to other cesarean and vaginal populations.
2. Knowledge of participation in the study may have influenced the subjects' responses to the questionnaire.
3. The use of a self-administered mailed questionnaire has some inherent drawbacks: only verbal behavior can be obtained, the investigator has no control over the environment or the order of question response, and some questions may be left unanswered.
4. No data were collected to determine why the 20 nonrespondents did not return their questionnaires.
5. Emotional reactions were only elicited at 14 days after delivery.
6. Probe questions concerning nursing care were not employed; therefore, data related to nursing care are general and not specific in nature.

## Conclusions

As previously stated, this study was based on the conceptual framework of loss and grief. Loss is a situation in which a valued object is perceived to be rendered inaccessible. Certain factors influence the perception of a situation as a loss and they are the objective characteristics of the situation, characteristics of the individual experiencing the situation, and the individual's external resources. Grief is the combination of emotions felt following a situation which an individual perceives as a loss. Thus the framework predicts that when an individual encounters a situation which he perceives as a loss the emotional reaction to that situation will be grief (Figure 6).

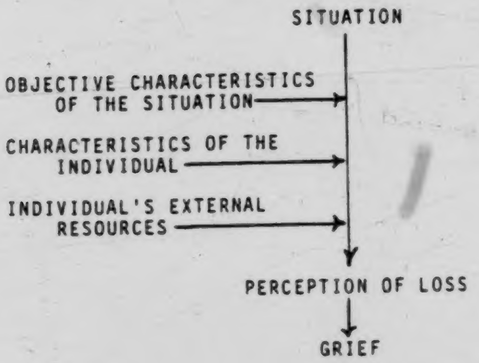

SITUATION
OBJECTIVE CHARACTERISTICS OF THE SITUATION
CHARACTERISTICS OF THE INDIVIDUAL
INDIVIDUAL'S EXTERNAL RESOURCES
PERCEPTION OF LOSS
GRIEF

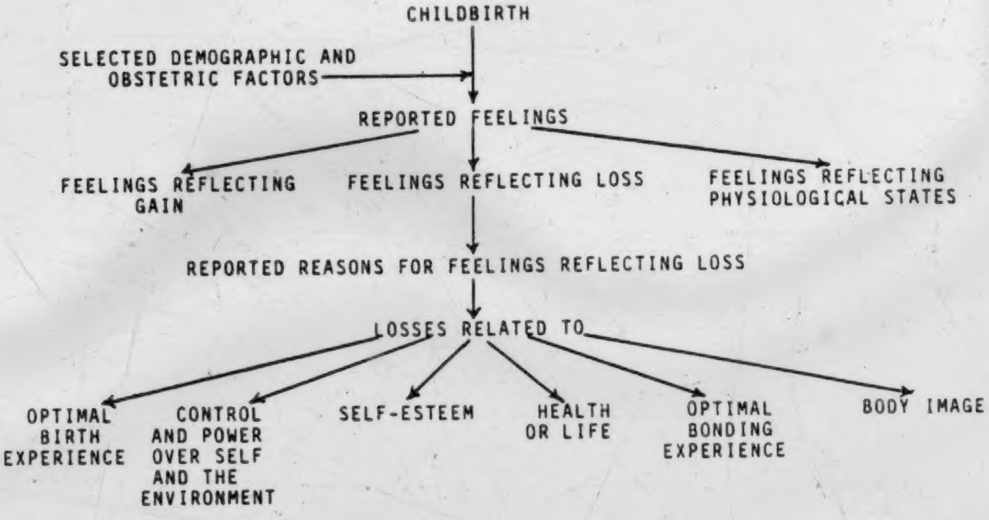
FIGURE 6

PICTORIAL REPRESENTATION OF THE CONCEPTUAL FRAMEWORK OF LOSS AND GRIEF

In order to identify the losses that the subjects of this study experienced, they were asked to describe their feelings in relation to childbirth. From these responses feelings reflecting loss, gain,and physiological states were identified. Subjects were also asked to describe why they felt they experienced the feelings they reported. From the reasons subjects cited for their reported feelings reflecting loss, the losses that subjects experienced were identified. Data were gathered from the subjects' hospital records concerning factors which were expected to influence the emotional reactions to childbirth. The selection of these factors was guided by predictions made in the literature concerning childbirth, wherein factors were suggested as influencing the emotional reactions to childbirth. Subjects were recategorized according to these factors to assess each factor's impact on the subjects' reported feelings and reasons for feelings reflecting loss concerning childbirth. Figure 7 illustrates the method used in this study to obtain data related to the conceptual framework of loss and grief, as outlined in Figure 6.

FIGURE 7

PICTORIAL REPRESENTATION OF THE METHOD USED TO OBTAIN DATA RELATED TO THE CONCEPTUAL FRAMEWORK OF LOSS AND GRIEF


CHILDBIRTH
SELECTED DEMOGRAPHIC AND OBSTETRIC FACTORS
REPORTED FEELINGS
FEELINGS REFLECTING GAIN
FEELINGS REFLECTING LOSS
FEELINGS REFLECTING PHYSIOLOGICAL STATES
REPORTED REASONS FOR FEELINGS REFLECTING LOSS
LOSSES RELATED TO
OPTIMAL BIRTH EXPERIENCE
CONTROL AND POWER OVER SELF AND THE ENVIRONMENT
SELF-ESTEEM
HEALTH OR LIFE
OPTIMAL BONDING EXPERIENCE
BODY IMAGE

The conclusions from this study are summarized under the headings: feelings, losses, general impressions of childbirth, impact of selected demographic and obstetric factors, and nursing care. While differences of 10% between the vaginal and cesarean groups were considered in the previous chapter, only differences of 20% are presented in the conclusions. Caution must be exercised in interpreting findings based on these differences.

## Feelings

Four feelings differentiated the cesarean and vaginal groups when differences of 20% were considered.

1. The vaginal group reported that they felt supported more often during labor while the cesarean

delivered subjects reported feeling supported more frequently during the postpartum hospitalization (excluding the first 24 hours after delivery). Perhaps the support vaginally delivered subjects desired during labor was less than that desired by cesarean delivered subjects. The cesarean group may have felt more supported during the postpartum because they were hospitalized for a significantly longer period on the average (approximately 6 days) than the vaginal group (approximately 4 days).

2. Pain was reported by vaginally delivered subjects more frequently than by cesarean delivered subjects just prior to delivery. It is probable that pain was experienced to a greater degree by vaginally delivered subjects at this time because they were in the final stages of labor.
3. Distorted perceptions after delivery were almost exclusively reported by cesarean delivered subjects which may have been a result of general anesthesia and narcotic analgesia.
4. The vaginal group indicated feelings of happiness more often than the cesarean group during the postpartum hospitalization, which appeared to reflect a higher degree of satisfaction with their childbirth experiences.

Similarities of feelings between the cesarean and vaginal groups were found in the five time periods: labor, half-hour prior to delivery, 24 hours following delivery, remainder of the hospital stay, and after arriving home until the time of questionnaire response.

1. Anxiety was the most prominent feeling during the labor experience for both groups. Sixty-one percent of the 28 cesarean delivered subjects reported anxiety, while 53% of the 36 vaginally delivered subjects noted both anxiety and feelings of being supported. Excitement figured prominently in approximately one-third of both groups, and 39% of vaginally delivered subjects also reported pain.
2. During the half-hour prior to delivery no feeling was reported by a majority of either group. Anxiety was recalled by 49% of the cesarean delivered subjects and 36% of the vaginally delivered subjects. In addition, pain was reported by 42% of the vaginal group.
3. During the first 24 hours after delivery a majority of the vaginal group reported feelings of happiness (61%), while 49% of the cesarean group recalled these feelings. One-third of the vaginally delivered subjects also indicated feeling fatigued.
4. The majority of cesarean delivered subjects reported feeling supported (54%) during the remainder of the hospital stay. Feelings of

restlessness were reported by more than one-third of both subject groups. Feelings of happiness (42%) and anger (36%) were also reported by more than one-third of the vaginal group.

5. After arriving home the majority of both groups reported happiness, 73% of the cesarean group and 56% of the vaginal group. Forty-two percent of the vaginal group also felt anxious.

At two time periods, when cesarean subjects learned they were to have cesarean delivery and during delivery, there were only results for one group. The feelings most frequently reported during these intervals are as follows.

1. When cesarean delivered subjects (N=37) learned they were to have cesarean delivery, mixed feelings were reported. Over one-third of this group remembered feeling relieved (46%), disappointed (46%), and/or anxious (35%).
2. The vaginal group reported mixed feelings during delivery. Happiness was indicated by 47% of these subjects and both excitement and anxiety were recalled by one-third of this group.

## Losses

The largest difference (42%) betweeen the cesarean and vaginal group in emotional reactions to childbirth concerned loss related to optimal delivery experience, which was indicated most often by the cesarean group. The cesarean section was unanticipated for the majority of cesarean delivered subjects.

The findings concerning the most frequently indicated losses for the cesarean and vaginal groups are highlighted. Two losses were indicated by the majority of subjects, those related to optimal labor experience and anticipated loss of the infant's health and/or life. It appears that the labor experience is likely to be a source of loss for women regardless of the delivery route. In addition, concern for the infant is aroused by the birth process.

More than one-third of the cesarean delivered subjects indicated losses related to self-esteem concerning both their nursing care (46%) and mothering abilities (41%), control during labor (39%), fear of surgery (35%), and power over their home environments (35%). On the other hand, more than one-third of the 36 vaginally delivered subjects indicated losses related to self-esteem concerning both mothering abilities (50%) and nursing care (39%), and power over their home environments (39%). It appears that loss related to self-esteem either stemming from interactions with nursing staff or caring for one's infant may occur despite the mode of delivery. Further, loss related to the ability to exert power over one's home environment may arise after vaginal or cesarean delivery.

Loss related to control during labor was reported by approximately one-third of the cesarean group; however, there was no 20% difference in the reporting of this loss between the cesarean and vaginal groups. Loss related to fear of surgery was specific to the cesarean group as surgery was involved in this mode of delivery.

## General Impressions of Childbirth

The most positive and least positive aspects of childbirth were elicited in this study. In addition, subjects were asked to compare their actual childbirth experiences with their expectations of childbirth prior to the event. Five trends emerged.

1. Having given birth to a healthy infant was the most positive aspect of childbirth for 74% of the cesarean delivered subjects (N=35) and 50% of the vaginally delivered subjects (N=36). An additional 33% of the vaginal group indicated that seeing the birth of their infants was most positive.
2. Thirty-eight percent of the cesarean group (N=32) indicated their cesarean deliveries were least positive.
3. Labor was the least positive aspect of childbirth for 63% of the vaginal group (N=35).
4. The cesarean delivery was unexpected by 68% of the cesarean group (N=34).
5. Labor was more difficult than expected for 78% of the vaginal group (N=32).

## Impact of Selected Demographic and Obstetric Factors

No single demographic or obstetric factor was isolated in this study which could be viewed as having a significant impact on the emotional reactions of subjects to childbirth. This may have been due to the small sample sizes which resulted from recategorization of the subjects according to the selected demographic and obstetric factors, and large number of emotional reactions that were identified during the seven time intervals of this study. From the results of this investigation it seems that the similarities between subjects' emotional reactions to childbirth far outweigh the differences in emotional reactions, regardless of the factors used to categorize the subjects.

## Nursing Care

The majority of subjects appeared to be satisfied with their nursing care. In general, those nurses who attempted to individualize the subject's care were held in high esteem. Positive attitudes of nurses were reported to be the most helpful aspects of nursing care, while negative attitudes were indicated to be the least helpful aspects of nursing care. The information concerning mothering techniques provided by nurses was the second most valued aspect of nursing care. Suggestions for improving nursing care largely involved anticipation of the subjects' needs for physical care and information concerning infant care.

## Implications for Nursing

The results of this study suggest several areas in which nursing could have a positive impact on primiparas' emotional reactions to childbirth: (a) prenatal education, (b) labor care, (c) breastfeeding, (d) information concerning the routines and expectations of new mothers on the postpartum unit, (e) infant care instruction, (f) postpartum care, and (g) preparation for discharge.

### Prenatal Education

Since cesarean section is a likelihood in one of seven deliveries, this fact could be presented to new mothers along with information concerning the indications for cesarean delivery, the delivery process, and the postpartum course. In addition, the emphasis that is placed on "natural childbirth" implies that there is something unnatural or abnormal about women who do not deliver vaginally, consequently some subjects felt that they had failed when delivering by cesarean section. A proportion of subjects required medication during labor, and since some of these subjects did not feel that they were prepared for this possibility, loss related to self-esteem occurred. Instruction concerning the judicious use of medication during labor appears to be indicated. Since many subjects had unrealistic expectations of labor, both what the experience would be like and how they would cope with labor contractions, a more realistic representation of the labor experience could be given to expectant mothers.

### Labor Care

In this study it appeared that women required support when the unexpected occurred, such as nonprogressive labor, more difficulty controlling themselves than expected due to the length or strength of contractions, erratic labor, induced labor, or when they learned of the necessity for cesarean delivery. Thus, when labor is not progressing as the woman expects nursing support may be required. A proportion of subjects feared the surgical experience of cesarean section, and concern was indicated by the majority of subjects for the infant's safety. Perhaps nurses could anticipate and encourage expression of these fears to support women at this time.

### Breastfeeding

The need for more support during the initial and subsequent breastfeedings in hospital and at home was explicitly stated by several subjects. Thus, there appears to be a need for nurses to identify those women who require support in breastfeeding and to provide this support both in hospital and after discharge.

## Routines and Expectations

A knowledge deficit in relation to hospital routines and the nurses' expectations of new mothers was alluded to by several subjects. This information needs to be provided at a time when the woman is able to take it in. From the findings of this study it was evident that the first 24 hours after delivery was not that time for some subjects. Assessment of the new mother's ability to absorb information should be an ongoing process during the postpartum period.

## Methods of Infant Care Instruction

In this study a number of subjects appeared to feel comfortable performing infant care tasks after the principles had been explained; however, other subjects preferred to see the task carried out in order to develop confidence in their mothering abilities. Thus, teaching methods could be adapted to the woman's preferred learning style.

## Postpartum Care

Three situations were identified in which subjects required additional support during the postpartum hospitalization.

1. A number of subjects delivered outside of their communities and thus did not have access to their usual support systems. Nurses need to develop methods to provide support to women who are unable to utilize their support systems.
2. Several cesarean delivered subjects who did not experience labor appeared to have difficulty accepting that a cesarean section had been necessary. Knowledge concerning indications for cesarean delivery is required, and support could be provided to help such women to deal with the ramifications of this alternative mode of delivery.
3. Concern was expressed over body image changes by a number of subjects and nursing support could facilitate adjustment to these changes, both in hospital and in the community.

### Preparation for Discharge

Concern over their ability to establish a routine at home was expressed by the majority of subjects in this study. Information concerning the variables related to establishing the mother infant routine appeared to be a requirement for these women. In addition, a preformulated coping strategy to deal with the psychological and physical fatigue of mothering would have benefited these subjects. Since several subjects were unsure of their physical care needs after discharge, it appears that methods need to be devised to divert women's attention from their infants' care needs to themselves. Further, the responsibility of mothering appeared to have its greatest impact after discharge. Strategies to promote the new mother's self-confidence in hospital need to be devised and continued in the community.

## Implications for Further Investigation

The factors in this study which indicated a trend in differentiating subjects' emotional responses were: type of delivery (cesarean or vaginal), preference for cesarean delivery, age, time of questionnaire response, infant size, type of cesarean delivery (with or without labor), previous surgery, support person's presence during labor, marital status, when subjects were informed they might have a cesarean delivery, and length of labor. Since the categorization of subjects according to these factors frequently resulted in groups of very small size, the exploration of these factors would be facilitated by deliberate selection of larger numbers of subjects according to these factors.

The collection of data on preference for cesarean delivery prior to delivery would likely yield more objective results concerning this factor, compared to the results that were obtained when this information was elicited after delivery had occurred. Since the cesarean and vaginally delivered subjects differed significantly with respect to attendance at prenatal classes, presence of a support person during labor, length of labor and infant size, controlling for these four variables would be important in future studies. Prenatal classes are held by a number of different groups, thus it is not surprising that no differences were found in emotional reactions to childbirth between subjects who attended prenatal classes and those who did not. Further study appears warranted on the quality of prenatal preparation and its impact on emotional response to childbirth. The impact of three factors that were not considered in this study: perceived control over the birth experience, delay in maternal-infant contact, and postpartum situational support could also be explored.

Obviously nursing care was explored in a general fashion in this study. More extensive and specific probings in this area would likely be fruitful. The differences and similarities between cesarean and vaginally delivered subjects concerning the reasons given for feelings reflecting gain and physiological states in response to childbirth were not explored. This information may prove useful for nurses providing care to new mothers.

# CHAPTER SEVEN

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## APPENDIX A: MATERNAL QUESTIONNAIRE (FORM C)

Date questionnaire filled out: ____________________

Part I: Please circle Yes or No and respond to the following questions.

1. Before you came to the hospital to deliver your baby, did your doctor ever suggest that you might need a cesarean delivery?
   No
   Yes......How long before your delivery was this?
   ____days or ____weeks

2. Did you want to have a cesarean delivery?
   Yes
   No

3. Were there any major changes in your life during the past year, besides becoming pregnant and having your baby?
   Examples: Did you move?
   Did your marital or financial situation change?
   Were you or was anyone in your family ill?
   Did a relative or close friend die?
   Did anything happen that upset you?
   No
   Yes........What changes took place?____________________
   ____________________
   ........How long ago was this?____________________
   ........How do you feel about this now?____________
   ____________________

Part II: This part of the questionnaire refers to the events of labor, delivery, and since delivery.

Please answer questions 1. to 6. by writing your feelings, explaining why you think you felt this way, and estimating how strong each feeling was by using the following scale:

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| very strong | strong | moderate | mild | very mild |

## APPENDIX A: MATERNAL QUESTIONNAIRE (FORM C) cont.

Example: How did you feel when you became pregnant?

| Feeling | Why | How Strong |
|---|---|---|
| shocked | I wasn't expecting to become pregnant | 1 |
| excited | about being a mother | 2 |
| scared | of the responsibility | 3 |

1. How did you feel during your labor?

| Feeling | Why | How Strong |
|---|---|---|
| | | |
| | | |
| | | |

2. How did you feel when you realized you were going to have a cesarean delivery?

| Feeling | Why | How Strong |
|---|---|---|
| | | |
| | | |
| | | |

3. How did you feel during the half hour before your delivery?

| Feeling | Why | How Strong |
|---|---|---|
| | | |
| | | |
| | | |

4. How did you feel during the first 24 hour following your delivery?

| Feeling | Why | How Strong |
|---|---|---|
| | | |
| | | |
| | | |

5. How did you feel during the rest of your time in the hospital?

| Feeling | Why | How Strong |
|---|---|---|
| | | |
| | | |
| | | |

6. How have you felt since you arrived home?

| Feeling | Why | How Strong |
|---|---|---|
| | | |
| | | |
| | | |

Now that you have written about your feelings at specific times during childbirth, I would like to ask you a few questions about your experience in general.

7. Overall, what was most positive?(good)____________

8. Overall, what was least positive?(not good)__________

9. Some women say that their experience was different from what they thought it would be like; while other women say it was pretty much what they had expected. What were the differences, if any, you found between what you thought your childbirth experience would be like and what actually happened?

Part III: The next questions refer to the nursing care you received during your childbirth experience.

1. What was helpful?____________

2. What was not helpful?____________

3. In addition, what could nurses have done for you that would have been helpful?____________

Do you have any additional comments about your childbirth experience?

## APPENDIX B: CHART DATA

The following data was collected from the subjects' hospital records.

Identifying data:________________________________________

1. Age:___
2. Marital Status: _married _single _other_____________
3. Race: _Caucasian _other_________________
4. Gestation: _______weeks
5. Infant Sex: _male _female
6. Infant Weight: __________gms.
7. Apgars: ____
8. Postpartum Unit:
9. Surgery: _as an adult(>18 yrs.) _as a child _none
   specifics_____________________________________________
10. Fertility Problem: _no _yes_______________
11. Attendance at Prenatal Classes: _yes _no
12. Pregnancy Complications: _bleeding _pre-eclampsia
    _postmature _premature ruptured membranes _infection
    _gestational diabetes _other_______________
13. Labor Complications: _breech _prolonged labor
    _fetal distress _other_____________________
14. Delivery Complications: _laceration _forceps
    _episiotomy _mode of cesarean___________ _other______
    ______________________________________________________
15. Blood Loss: ________cc.
16. Postpartum Complications: _infection _hemorrhage
    _other_____________________________________________
17. Induction: _oxytocin _amniotomy _prostaglandins
    _augmented labor with oxytocin
18. Support Person in Labor: _no _yes_____________
19. Support Person in Delivery: _no _yes_____________
20. Length of Labor: _________hrs.
21. Type of Delivery: _cesarean _vaginal
22. Delivery Time: Day____ Month____ Time:____
23. Reason for Cesarean: _____________________________
24. Mode of Infant Feeding: _breast _bottle

# APPENDIX C: LETTER TO MEDICAL STAFF

Dear Dr.

I would like to obtain your approval to approach your primigravida patients, during their hospitalization at the Hospital, and invite them to participate in my research study. This study will be conducted as a requirement for my Master's of Nursing degree at the University of Alberta. The following is a brief description of this study.

My research objectives are to document and compare the reactions of cesarean and vaginally delivered women to their childbirth experiences. I intend to explore the losses which cesarean mothers report in the postpartum period, factors which may influence the significance of these losses, and the feelings cesarean mothers report in the postpartum period. My sample will consist of 40 cesarean delivered women and 40 vaginally delivered women. The criteria for subject selection are: each subject must read and write English, the subject's infant must have been admitted to a general nursery, and the cesarean delivered subjects must have had general anesthesia and a trial of labor.

Each subject will be approached by myself prior to discharge to explain the purpose of the study and the requirements of participation, and to invite them to participate. A questionnaire consisting of open-ended questions concerning feelings experienced before, during, and/or after delivery, will be mailed to those subjects who agree to participate. A returned questionnaire is considered to imply consent to participate in the study. All subjects will be informed of their right to refuse to participate and/or withdraw from the study at any time without penalty or consequence. Data concerning demographic variables and events of the childbearing period will be obtained from the subjects' hospital records. The name of the physician is not part of the data collection procedure and no physicians' names will appear in any reports related to this study.

Should you desire any more information related to this study, please feel free to contact me. I will be contacting you in the near future to ascertain if your patients may be included in my study. Thankyou very much for your consideration in this matter.

Sincerely,

Linda Ambrose R.N., B.Sc.N.
Home Phone: 466-2839

## APPENDIX D: LETTER TO SUBJECTS

Dear New Mother:

I would like to take this opportunity to congratulate you on the birth of your new baby. I am conducting a research study to learn how new mothers feel after having their babies. I know this is a busy time for you; however, I would like you to participate in my study by answering the enclosed questionnaire. Since I am a nurse, I will be sharing the results of my study with other nurses and we hope to be able to provide new mothers with better nursing care because of the information you and other mothers contribute.

If you would like to participate in this study, please complete the questionnaire approximately 2 weeks after you deliver and return it in the enclosed, self-addressed stamped envelope. Please read each question carefully and answer as accurately as you can. If you should need more space to answer a question, please use the additional page enclosed. Your answers will be treated confidentially and your name will not appear on any reports related to this study; therefore, it is not necessary to write your name on the questionnaire or on the return envelope. You are free to withdraw from this study at any time by not returning this questionnaire or by phoning me at the number given below. I will be telephoning you 2 weeks after your delivery just to remind you about this study.

Thankyou very much for your time and consideration in contributing to this study. If you wish to receive a summary of the results please complete the enclosed postcard.

Sincerely,

Linda Ambrose R.N., B.Sc.N.
Master's of Nursing Candidate
University of Alberta, Edmonton.
466-2839

# APPENDIX E: COVER LETTER TO CONTENT VALIDITY EXPERTS

Dear

Because of your expertise in the maternal-child field, I am requesting your input concerning the enclosed instruments as the basis for content validity in my research. Attached are the abstract of my study, the statement of research questions, the cover letter to be sent to the subjects, the Maternal Questionnaire, and the chart data to be collected. I am specifically interested in assistance with the following questions; however, any additional comments would be much appreciated.

1. Are the instruments proposed appropriate for achieving the objectives of this study?

2. Do the questions included in the Maternal Questionnaire , Part II give the subjects an opportunity to discuss all their feelings related to the birth process?

3. Are the examples of feelings provided in the Maternal Questionnaire, Part II appropriate and do they offer an adequate range of feelings?

4. Are the factors identified in the Maternal Questionnaire, Part I and the chart data form appropriate and inclusive?

5. Do the questions in the Maternal Questionnaire, Part III give the subjects an opportunity to discuss the nusing interventions they experienced during their childbirth experiences?

6. Please comment on the overall clarity of the Maternal Questionnaire, the presentation, readability, and order of the questions.

Additional Comments:

## APPENDIX F: FEELINGS CATEGORIZATION

### Feelings Reflecting Gain:

Relieved: freedom from anxiety or fear
Happy: pleasure or joy, delighted over something (glad, ecstatic, thrilled, elated, overjoyed, wonderful)
Excited: stirred emotionally, stimulated to activity, or enthusiastic (energetic, revitalized, eager to see one's infant)
Confident: thinking well of oneself, up to a particular task (capable, in control, coping well)
Supported: appreciation of kindness or benefits received (thankful, accepting, cared for, secure, reassured, grateful)
Calm: freedom from excitement, tranquil (peaceful, composed, relaxed, contented, worryless, restful)

### Feelings Reflecting Loss:

Anxious: distressing emotion aroused by impending pain, danger, or such an illusion (afraid, concerned, apprehensive, nervous, tense, uptight, panicky)
Losing Control: lacking or questioning one's ability to cope with labor (can't go on, endless, never make it don't care anymore, want to end the pain)
Shocked: sudden disturbance of the emotions, mind or sensibilities (disbelief, bewildered, confused, overwhelmed, shaken up)
Disappointed: saddened by the failure of one's hopes or expectations, thwarted (frustrated, inadequate, hopeless, a failure, resigned, dependent, helpless, impotent, disorganized, hard to cope)
Depressed: low in spirits (sad, down, listless, tied down, anorexic, confined, lonely, isolated)
Angry: displeasure aroused by a real or supposed wrong (irritated, bothered, annoyed, cheated, betrayed, ill-prepared)
Restless: impatient with one's situation (bored, anxious/excited/glad to get home)

### Feelings Reflecting Physiological States:

Pain: bodily suffering or distress (sore, agony, sick, nausea, discomfort)
Fatigue: weary from bodily or mental exertion (tired, weak, exhausted, shakey, night feeds were torture)
Distorted Perceptions: lacking one's usual ability to sense reality (out of it, groggy, dopey, drowsy, numb, only concentrating, delerious, wiped, unaware of surroundings, couldn't follow instructions)

## APPENDIX G: LOSS CATEGORIZATION

Losses related to optimal birth experience: prenatal classes had led subjects to expect something different; labor, delivery or the hospital postpartum period were not what the subject had expected and the subjects indicated these were undesireable.

-Optimal Prenatal Experience (no preparation for cesarean delivery in classes, information gained was not applicable, too much emphasis was placed on natural childbirth)

-Optimal Labor Experience (labor was longer, stronger, more painful, or more erratic than expected; disappointed induction was employed, labor was for nothing, missed the experience of labor)

-Optimal Delivery Experience (not a natural or normal delivery, operation not wanted, didn't see the birth, delivery more painful than expected; disappointed a particular doctor did not perform the delivery, husband was not present, forceps were employed)

-Optimal Postpartum Experience (more pain, far from home, husband unable to visit)

Loss related to optimal bonding experience: the subject was unable to have contact with her infant to the extent she had expected.

(wanted to be with, to see or to feed her infant earlier than she had, found difficulty connecting her infant with the infant she had imagined, or difficulties with breastfeeding)

Losses related to control and power over self and the environment: the subject did not feel in control over events directly affecting herself and the birth experience, her care in hospital or her life at home.

-Labor Control (anxiety over the availability of assistance, didn't know what was expected of her or was given false encouragement, concerned over losing control or her ability to follow directions, had no options or input concerning the birth)

-Power Hospital (lacked information concerning the postpartum unit routines or staff expectations of her, the visiting hours were not enforced, the presence of a student nurse or too many different nurses was undesireable, her doctor was not readily accessible; the height of the bed, the environment's temperature, or the shower facility was not adequate)

-Power Home (felt unprepared at home, had difficulty establishing a routine, coping with night feedings, or getting enough rest; experienced great changes in her life or her emotional state)

# APPENDIX G: LOSS CATEGORIZATION (cont.)

Losses related to self-esteem: the subject questioned her abilities to accomplish labor and delivery according to her own expectations, to care for her infant or to gain the information she needed from the nursing staff.

- -Self-Esteem Labor (disappointed about having to take medications, dissatisfied with her ability to cope with labor, disappointed she couldn't have her infant naturally)
- -Self-Esteem Mothering (unsure of her capabilities as a mother or her ability to handle the responsibility of motherhood)
- -Self-Esteem Nursing Care (did not get the information she required either because it was not enough, wrong, too much at once, conflicting, or based on personal opinion; nurses lacked consideration, staff were not open to questions or demeaned patients by their attitudes)

Anticipated loss of life or health: the subject feared the loss of her own or her infant's life or health, or had a general feeling of dread with regards to surgery, indicating the anticipation of a loss without being able to specify the object expected to be lost.

- -Infant Safety (concern for the infant's life or health, or relief when the subject knew her infant was all right)
- -Personal Safety (unsure she would survive the delivery)
- -Surgery (afraid of the operation, concerned something would go wrong, relieved after the surgery)

Loss related to body image: the subject felt her usual body functioning was disrupted or she viewed her body negatively.

(not strong enough or had too much pain to hold her infant or to do the things she wanted, cesarean delivery required a longer convalescence, negative feelings were expressed toward stretch marks, episiotomy, hemorrhoids, or incision)